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Sustainability report 2016

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**For more than 45 years, URENCO has played an important role in the world's civil nuclear energy industry. We are committed to helping our customers generate low carbon energy in a safe and sustainable way.**

As a key player in the global civil nuclear fuel cycle, sustainability is fundamental in our strategic decision making at URENCO. It shapes our customer partnerships, informs our efforts to meet demand, and guides our strategic and operational decision-making. We continue to report to the international Global Reporting Initiative (GRI) G4 reporting standards as part of this commitment to society and the environment.

Nuclear is a long-term business and URENCO takes a long-term view of its operations. We know that our utility customers value our reliable supply of uranium enrichment services in order to provide low carbon electricity to consumers across the globe. We are firmly committed to their success and to ours.

It is what we call '**enriching the future**'.



**Miriam Maes**  
Chair of Board  
Sustainability  
Committee

Sustainability to URENCO means creating the right conditions now to support the delivery of our long term strategy without compromising the environment in which we operate.

We report in accordance to the GRI standards in order to guide our continual improvement in this area and support our commitment to open and transparent communication of URENCO's performance.

Our sustainability programme is built around six key areas of focus, which ensures we report on the most relevant topics to our business and those of specific interest to our stakeholders.

As Chair of the Sustainability Committee, I am pleased with the progress the organisation has made to embed sustainable practices into day to day operations.

# Overview



**Dr Thomas Haeberle**  
Chief Executive Officer

## How was 2016 for URENCO from a sustainability perspective?

One of the major developments of 2016 was our strategic review, which we undertook with the aim of setting out the direction for URENCO's long term future.

Given the continued challenges in the global enrichment market, a comprehensive strategic review was conducted of both our business and our market. Our goal is to ensure that URENCO is well positioned to respond to these ongoing challenges, minimise risk to our business and identify growth opportunities so that we remain a secure, long term partner to our customers.

URENCO has played an important role in the world's nuclear energy industry for more than 45 years, which is testament to our ability to address market challenges and embrace change. URENCO's new strategy is centred on optimising our business, remaining a leader in the global supply of enrichment services and expanding our high tech capabilities to more broadly serve the nuclear energy industry. Our strategy will ensure we leverage our technical capabilities for long term advantage. Ensuring the long term sustainability of the company was the foundation of the strategic review.

More information on URENCO's new strategy can be found in our Annual Report 2016.

## Chief Executive Officer's review

**URENCO is committed to maintaining its position as a leading provider of enrichment services and fuel cycle products for the civil nuclear industry. Aiming to optimise the way we operate, broaden our services and remain a partner to the nuclear industry, we are focused on meeting customer requirements and ensuring the long term success of our business.**

**Here, our Chief Executive Officer Thomas Haeberle answers questions about URENCO's sustainability performance in 2016 and our future direction.**

## How embedded is sustainability and what does it mean to the organisation?

For URENCO, sustainability is about building a company for the long term. We provide our customers with the enrichment services they need to produce low carbon electricity through nuclear power generation. URENCO takes a holistic view of its economic, environmental and social impacts to ensure we have the appropriate measures in place to protect our business, whilst continuing to meet the needs of our stakeholders.

According to the latest IPCC Synthesis Report, at least 80% of the world's electricity must be low carbon by mid-century if we are to stand a chance of keeping global warming below 1.5°C.<sup>1</sup> Nuclear energy currently avoids approximately 2.5 billion metric tonnes of CO<sub>2</sub> from being emitted into the atmosphere each year,<sup>2</sup> and is the second-largest source of low carbon power after hydro.<sup>3</sup>

URENCO has a Board level Sustainability Committee, now in its third year, which enables our sustainability agenda to be embedded across all areas of our business and supports our objective to be a long term partner to the civil nuclear industry.

In 2015, we introduced key performance indicators (KPIs) leading to an improvement in the way we monitor and report on progress in our sustainability focus areas, and in 2016 we refined this process further through enhanced data quality, analysis and validation.

Our people have a clear understanding of the role URENCO plays in the production of low carbon energy to meet global energy demands, as well as the requirement to achieve efficiencies across all areas of the business.

Our commitment to sustainability helps us to continue to drive the progress of initiatives such as our ZERO HARM campaign and our Energy Savings Programme. Of course, we are still on a sustainability journey and it remains a key area of focus for our business.

<sup>1</sup> World Nuclear Association, Hot Topics 2015, p.6

<sup>2</sup> Nuclear Energy Institute: <https://www.nei.org/Knowledge-Center/Nuclear-Statistics/Environment-Emissions-Prevented>

<sup>3</sup> [www.forbes.com/sites/jamesconca/2015/12/15/paris-cop21-and-the-urgent-need-for-more-nuclear-energy/#4a29caff4952](http://www.forbes.com/sites/jamesconca/2015/12/15/paris-cop21-and-the-urgent-need-for-more-nuclear-energy/#4a29caff4952)

# Overview

## What were the sustainability highlights for the year? What were the challenges?

In 2016, we continued to focus on safety as our core priority, and conducted a company wide root cause analysis of safety incidents. Despite this ongoing process, in June 2016 at our Stable Isotopes facility in the Netherlands, we had an incident inside a fume cupboard where the compound  $\text{GeF}_4$  was being transferred into a cylinder. A small leak of the gas was detected by an operator on site. The incident was mitigated; however we take any incident of this nature very seriously, and learnings from the event were taken forward to further improve our safety and processes.

We made good progress in our environmental impact mitigation schemes, reducing electricity consumption across the organisation by more than 4%, compared to our previous best performing year (2014), rolling out our TC21 centrifuge energy efficiency programme in the USA and completing designs for a new recycling centre in the Netherlands.

Another highlight of 2016 was the launch of URENCO's new sponsored interactive gallery at the Science Museum in London. Unveiled in October 2016, 'Wonderlab: The Statoil Gallery' engages visitors with the wonders of science and mathematics and enables us to reach an even broader audience as we seek to enhance understanding of the nuclear industry, how it operates and why it is important. Our sponsorship is a powerful showcase of our commitment to science education and public engagement, as we focus on inspiring the next generation of scientists and engineers. We are all immensely proud of our partnership with the Museum, which is testament to the quality of our past education initiatives dating back to the launch of our Richie Programme for school children in 2007. For more information, see page 27.

In addition, as a mark of our commitment to transparency and engagement with stakeholders, in 2016 we launched a new sustainability section on our website where we have summarised key areas of interest.

In terms of our ongoing projects, we continue to work through the challenges we have encountered in the construction of our Tails Management Facility (TMF). The TMF is part of our commitment and leadership in responsible uranium stewardship and, while risks remain in terms of cost and schedule, we anticipate the commissioning for late 2017/early 2018. For further information, see page 19.

URENCO will continue to face pricing pressures due to the ongoing oversupply in the enrichment market. Our order book contains orders which extend to the second half of the next decade, with a value of approximately €15.5 billion, but it is clear the environment in which we operate has changed significantly. Adapting to change during this period will be critical, which is why we have conducted our comprehensive strategic review. Our new strategy aims to ensure our sustainability as an organisation.

## What does your ongoing commitment to GRI mean for URENCO?

Once again, this year we have prepared our Sustainability Report in line with GRI's G4 Core reporting requirements. Building on the progress we have made in recent years, in 2016 we improved our reporting process further by validating our material Aspects, with a cross section of stakeholders across the business, to ensure the information and data we report on continues to be relevant. For me, this reflects our commitment to continuous improvement and best practice.

## What is the outlook for the nuclear industry and URENCO?

Nuclear is well placed to meet increased future demand for energy. Global electricity demand is increasing twice as fast as overall energy use and is expected to increase by 30% up to 2040.<sup>4</sup> We know that this trend, combined with the global shift towards decarbonisation, will result in growth in the nuclear sector. We firmly believe that nuclear is an essential component of a balanced energy mix for the sustainability of the world and its economies. Despite current market challenges created by oversupply and increased volume of inventory, I think we can be cautiously optimistic that our industry will return to a more balanced supply and demand situation in the future. We believe that current prices are unsustainable to foster investment in enrichment operations, and customers will always require the security of supply that we continue to provide for our industry. Our geographic spread, with three European sites and a USA site, is a distinct advantage in providing security of supply to our customers. Our broad reach allows us to flexibly adapt to meet the changing demands of customers and the industry. We also have a strong forward order book which enables us to plan future production volumes in advance.

## What are your sustainability priorities for 2017?

Our main priority is to deliver on our new strategic objectives and maintain our position as a key supplier of enrichment services to the nuclear industry. We will endeavour to build our customer base, looking to expand our business and pursue new commercial opportunities, while maintaining the skills and technical capabilities to remain a long term partner to the industry.

In 2017, we will continue to monitor the consequences of the UK's withdrawal from the European Union (EU) and the EURATOM Community. We have created a Working Group dedicated to assessing all potential impacts and implications, and supporting industry associations through participation in some of their various sub groups.

While the UK's exit from the European Union and the EURATOM Community may create a period of uncertainty, URENCO is in a good position to anticipate and mitigate any risks that emerge from this process. The fact that we have enrichment plants in Europe and in the USA provides the unique benefit of geographical diversity of supply.



**Dr Thomas Hauberle**

Chief Executive Officer

<sup>4</sup> International Energy Agency, World Energy Outlook 2016: <http://www.iea.org/publications/freepublications/publication/WorldEnergyOutlook2016ExecutiveSummaryEnglish.pdf>



Sizewell B Nuclear Power Station, Suffolk, UK

## URENCO plays a key role in the global nuclear fuel supply chain. Providing our customers with the enrichment services they need, we enable the production of low carbon electricity through nuclear generation.

Around the world, we work with companies across the nuclear fuel cycle, including converters and fuel fabricators. Our aim is to provide our customers with a safe and reliable supply of enrichment services, alongside the highest level of service, quality and expertise. We have spent more than 45 years developing our technology and expertise in enrichment services. The number and location of our customers is shown on pages 10-11 of our 2016 Annual Report.

### Managing risk and sustainability in the supply chain

We take seriously our responsibilities as part of the global nuclear fuel supply chain and adhere to International Atomic Energy Agency (IAEA) guidelines and all other national and international regulations regarding the transportation of radioactive material. We also adhere to strict regulatory requirements in all aspects of our own logistics procedures. Beyond that, we actively contribute to the development of the regulatory framework by attending IAEA workshops, the results of which serve as recommendations for changes in legislation.

We are carefully monitoring the consequences of the UK's withdrawal from the European Union and the EURATOM Community. For more information, please see page 22.

#### 1. Mining

Uranium ore is extracted, purified and milled to become uranium oxide, also known as 'yellow cake'.

#### 2. Conversion

Uranium oxide is chemically converted into uranium hexafluoride ( $\text{UF}_6$ ), otherwise known as feed, and transported to one of our enrichment facilities.

#### 3. Enrichment and feed materials

Our customers'  $\text{UF}_6$  arrives at our enrichment facilities. We heat the  $\text{UF}_6$ , turning it into a gas which we feed into our centrifuges. The centrifuges separate the two isotopes contained in uranium,  $\text{U}_{235}$  and  $\text{U}_{238}$ , and enrich the lighter  $\text{U}_{235}$  to up to 5%. Our centrifuges also enable us to conserve feed material, which means we can provide EUP and natural uranium in addition to enrichment services.

#### 4. Fuel fabrication

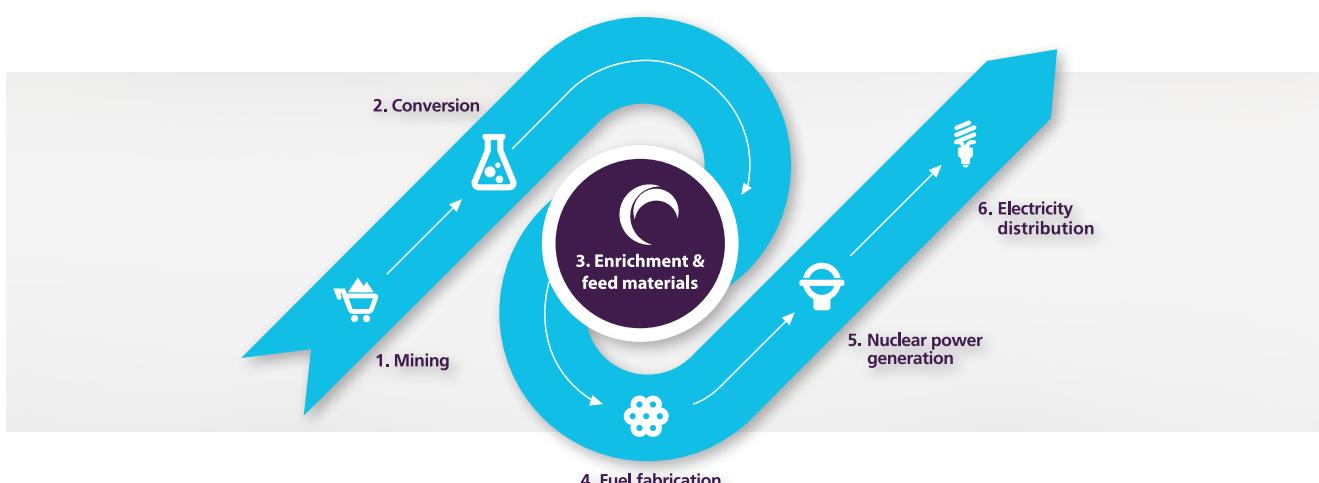
The customers' enriched uranium is transported to fuel fabricators, where it is converted into pellets before being loaded into fuel rods.

#### 5. Nuclear power generation

The fuel rods are transported to nuclear power stations, where they power nuclear reactors. Fuel rods are placed into the reactors, generating steam which drives turbines which in turn power generators.

#### 6. Electricity distribution

Nuclear power plants provide a secure source of low carbon energy, generating electricity for homes, schools, hospitals, offices and industries around the world.



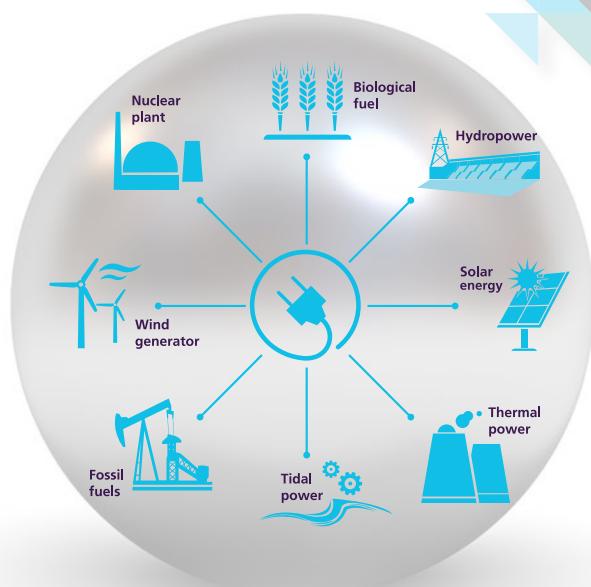
# Our role in the nuclear supply chain

## The essential role of nuclear power in a balanced energy mix

We believe that a balanced energy mix is required to provide the world with a reliable and consistent supply of electricity. Some energy sources, like renewable energy, are most suited to cover gaps in electricity generation as soon as they are needed, while others, such as nuclear energy, are used for providing steady, base-load electricity.\*

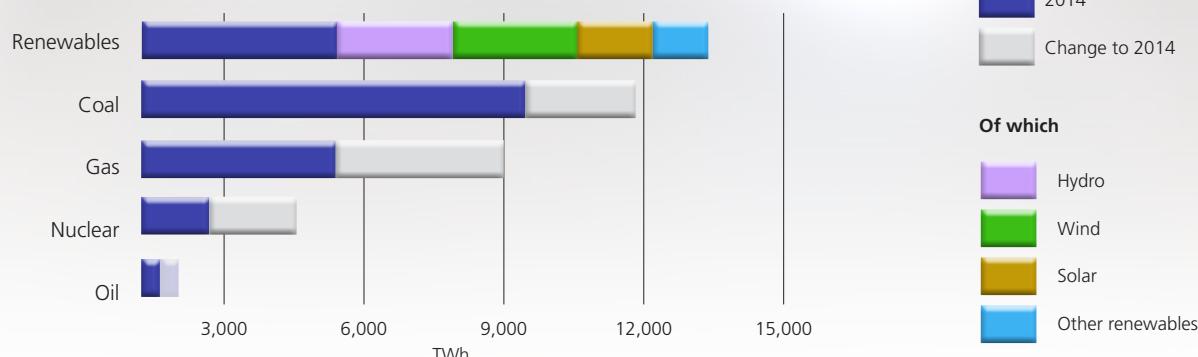
Nuclear power provides a constant supply of electricity to minimise the risk of power outages at peak times.

**Figure 1** demonstrates the global electricity generation by source from the various energy providers.



**Figure 1**

### Global electricity generation by source

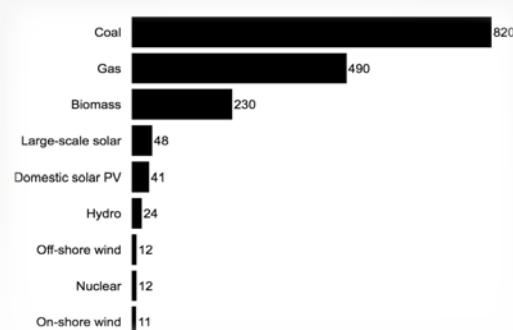


Global electricity generation by source in 2014 (terawatt hours, dark blue bars) and change to 2040 (grey, lilac, green, yellow and light blue bars).

Source: IEA World Energy Outlook 2015, presentation to the press.

We believe that nuclear energy plays an important role in helping the world to lower greenhouse gas emissions and combat climate change. **Figure 2** demonstrates the life cycle emissions from different energy sources, indicating that nuclear is one of the lowest.

### Figure 2 Life cycle emissions from electricity generation, gCO<sub>2</sub>/KWh



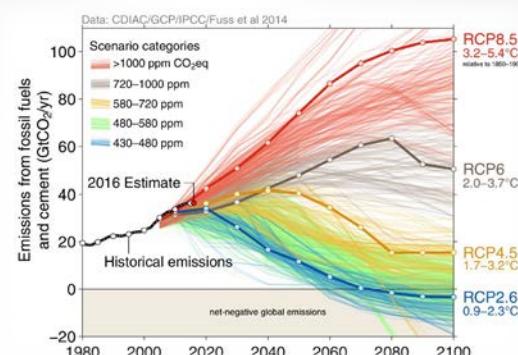
Source:  
Intergovernmental Panel on Climate Change Life Cycle Assessment 2011. Updated 2014.  
<http://energyforhumanity.org/en/briefings/carbon-emissions/lifecycle-carbon-emissions-of-electricity-generation-sources/>

\* Source: (<https://ourfuture.energy/post/33>)

**Figure 3** shows the various scenarios which may occur over the next decade if (globally) we decrease our carbon emissions, or continue down the same path. As a primary source of low carbon energy, nuclear power is well placed to help ensure the world keeps global warming below 1.5°C.

**Figure 3**

### Observed emissions and emissions scenarios



Source:  
Fuss et al 2014; CDIAC; IIASA AR5 Scenario Database; Global Carbon Budget 2016



**URENCO engages regularly with stakeholders in an open and transparent way. Our stakeholder engagement policy is a core aspect of our commitment to good governance and part of our efforts to raise awareness of our operations and our industry, enabling us to understand their specific issues and concerns.**

Through frequent stakeholder engagement, we are able to identify, manage and mitigate the sustainability risks and opportunities we face. In this way, the process of engagement underpins our commitment to our people, communities and the environment, and to the long-term success and sustainability of URENCO.

## Identifying our stakeholders

We define our key stakeholders as those we impact most as a business, and those who have significant influence on URENCO. In 2015, we conducted a comprehensive stakeholder mapping exercise to determine our key stakeholder groups. In 2016, we reviewed this mapping and were satisfied that the stakeholders identified in 2015 still hold true. While not exhaustive, the groups that form the core focus of our stakeholder engagement include (listed alphabetically):

- Customers
- Employees, including apprentices (across the organisation)
- Government/politicians (senior policy advisors, local government)
- Investors/shareholders/banks/rating agencies
- Local communities (those located close to our enrichment facilities and offices)
- Media/social media (global)
- Non-Government Organisations (NGOs):
  - Environment
    - Environment agencies (including campaign groups)
    - Research bodies
  - Community
    - Local authorities (in the countries where we operate)
    - Trade and industry associations (e.g. World Nuclear Association, national industry associations)
- Competitors  
(there are four primary global enrichers in the nuclear fuel cycle)
- Peers <sup>5</sup> (examples include Amec Foster Wheeler, Cameco, Hitachi and Johnson Matthey)
- Regulators (local and international)
- School children/students/graduates
- Suppliers (fuel cycle partners including fabricators/converters/transporters)

<sup>5</sup> We define our peers as those organisations of a similar size and structure, which we benchmark our sustainability performance against in order to enhance our sustainability programme.

# Engaging with our stakeholders

## Recording stakeholder dialogue

Every year, we record and collate stakeholder dialogue from each of our enrichment facilities and offices in a single stakeholder log. In 2016, this process once again enabled us to maintain an up to date account of stakeholder concerns and deal with them quickly and efficiently. This process also helped us highlight those issues that need closer monitoring.

Stakeholder group	Type of engagement	Example topics raised by individual stakeholders	Achievements in 2016
Customers	<ul style="list-style-type: none"> <li>Regular ongoing contact with each of our customers (including visits to URENCO's sites)</li> <li>Social media for news and corporate updates</li> </ul>	<ul style="list-style-type: none"> <li>Management of tails<sup>6</sup></li> <li>Environmental and sustainability impacts</li> </ul>	<ul style="list-style-type: none"> <li>100% customer delivery record</li> <li>A new long term customer added to the portfolio</li> <li>0 customer complaints</li> </ul>
Employees	<ul style="list-style-type: none"> <li>Quarterly 'About U' company magazines across the organisation</li> <li>Employee briefings/All Hands meetings/works councils</li> <li>Employee gatherings and events</li> </ul>	<ul style="list-style-type: none"> <li>Growing our Stable Isotopes business</li> <li>Final salary pension</li> <li>Strategic review</li> </ul>	<ul style="list-style-type: none"> <li>Increase in volunteering hours across the organisation of 37%</li> <li>Enhanced ZERO HARM campaign with new initiatives and contractor education</li> <li>Employee engagement on strategic review and implementation</li> <li>Regular employee dialogue with employees through briefing sessions and works councils</li> </ul>
Government/politicians	<ul style="list-style-type: none"> <li>One to one meetings</li> <li>Structured communication through URENCO's Joint Committee</li> <li>Enrichment facility visits from key officials</li> </ul>	<ul style="list-style-type: none"> <li>Political landscape</li> <li>Investment in local areas</li> <li>Opportunities in new markets</li> </ul>	<ul style="list-style-type: none"> <li>Site visits</li> <li>Continued dialogue with key opinion formers in EU and USA</li> </ul>
Investors/shareholders/banks/rating agencies	<ul style="list-style-type: none"> <li>Investor roadshows</li> <li>Shareholder working groups</li> </ul>	<ul style="list-style-type: none"> <li>Current market conditions</li> <li>Economic performance</li> </ul>	<ul style="list-style-type: none"> <li>One to one meetings held throughout the year</li> <li>Full Year 2015 Results presentation</li> </ul>
Local communities	<ul style="list-style-type: none"> <li>Local liaison dialogue</li> <li>Practical and financial support for community initiatives</li> <li>Tours of our enrichment facilities</li> </ul>	<ul style="list-style-type: none"> <li>Richie Programme (URENCO's science education programme; see page 27)</li> <li>Community workshops</li> <li>Traffic and noise issues raised in regard to the Capenhurst site</li> <li>Sponsorship opportunities</li> <li>Participation in community events</li> </ul>	<ul style="list-style-type: none"> <li>Regular council and local liaison meetings</li> <li>Noise monitoring equipment installed at the Capenhurst site in response to concerns raised by local residents</li> <li>Traffic situation lessened by avoiding highly congested routes into the Capenhurst site</li> <li>Continued with the highly valued Richie Programme of science workshops</li> </ul>
Media	<ul style="list-style-type: none"> <li>Journalist tours of our enrichment facilities</li> <li>Press releases and news releases</li> </ul>	<ul style="list-style-type: none"> <li>Local community grievances</li> <li>Potential sale of URENCO</li> <li>Traffic and noise issues raised in regard to the Capenhurst site (social media)</li> </ul>	<ul style="list-style-type: none"> <li>Local press and radio interviews</li> <li>Issue of press releases</li> <li>Site visits</li> </ul>

<sup>6</sup> Tails (depleted UF<sub>6</sub>) is the by-product of the enrichment process. We store tails at our enrichment facilities in internationally approved containers, pending deconversion to a chemically stable form – uranium oxide (U<sub>3</sub>O<sub>8</sub>) – for safe, intermediate storage on our sites ahead of long-term disposal.

# Engaging with our stakeholders

Stakeholder group	Type of engagement	Example topics raised by individual stakeholders	Achievements in 2016
NGOs Community trade/ industry associations and peer organisations	<ul style="list-style-type: none"> <li>We are members of a number of industry associations: see page 39.</li> </ul>	<ul style="list-style-type: none"> <li>Political landscape</li> <li>Public education</li> <li>Richie Programme</li> <li>Workforce skills gap</li> <li>Innovation, technology and R&amp;D</li> <li>Opportunities in new markets- to encourage nuclear demand</li> <li>Diversity</li> </ul>	<ul style="list-style-type: none"> <li>U-Battery consortium supported at various industry events</li> <li>Attendance and presentations at key industry conferences</li> </ul>
NGOs activist/ campaign groups	<ul style="list-style-type: none"> <li>Protestors/anti-nuclear parties</li> </ul>	<ul style="list-style-type: none"> <li>Potential closing of enrichment facility in Germany</li> </ul>	<ul style="list-style-type: none"> <li>Gronau City Council in Germany dismissed motion against URENCO brought to them by the country's Green Party (an anti-nuclear political party)</li> </ul>
NGOs environmental agency	<ul style="list-style-type: none"> <li>Enrichment facility visits from key officials</li> </ul>	<ul style="list-style-type: none"> <li>Traffic and noise issues raised in regard to the Capenhurst site</li> </ul>	<ul style="list-style-type: none"> <li>Noise monitoring equipment installed at the Capenhurst site in response to concerns raised by local residents</li> </ul>
Regulators	<ul style="list-style-type: none"> <li>Enrichment facility inspections, audits and visits from key officials</li> </ul>	<ul style="list-style-type: none"> <li>Licensing applications and continuing to meet regulatory requirements</li> <li>Safeguards</li> <li>Security briefings</li> <li>Regulatory compliance</li> </ul>	<ul style="list-style-type: none"> <li>Regular contact with national regulators for each site</li> </ul>
School children/ graduates/ apprentices	<ul style="list-style-type: none"> <li>Careers fairs</li> <li>Big Bang Fair in the UK</li> <li>Dedicated website for the Richie Programme</li> <li>Richie Programme in local schools</li> </ul>	<ul style="list-style-type: none"> <li>Career opportunities at URENCO</li> <li>Richie Programme</li> <li>The nuclear industry</li> <li>URENCO's role in the nuclear industry</li> </ul>	<ul style="list-style-type: none"> <li>URENCO announced as Major Sponsor of London Science Museum's most ambitious interactive gallery to date – 'Wonderlab: The Statoil Gallery'</li> <li>Collaboration with British Science Association to produce Discovery Day resource aimed at 11-14 year olds, teaching them about STEM subjects such as nanotechnology, electricity and ergonomics</li> <li>Third annual Richie Lecture, held at the Science Museum in the new 'Wonderlab' gallery</li> <li>More than 33,000 students participated in the Richie Programme globally</li> </ul>
Suppliers	<ul style="list-style-type: none"> <li>One to one meetings</li> <li>Visits to port authorities</li> </ul>	<ul style="list-style-type: none"> <li>Transportation licences for shipping uranic materials</li> <li>Opportunities in new markets</li> </ul>	<ul style="list-style-type: none"> <li>Conducted visits to port authorities in the USA and EU, looking to ensure uranic materials continue to pass unhindered through key port facilities</li> </ul>



In 2016, we refined our key performance indicators (KPIs) in each of our focus areas and achieved

**75%** of our targets for the year.

2016 Sustainability: KPIs					
Focus area	Description	Target for 2016	Results for 2016		
Supplier of choice	Missed deliveries	0	0		Page 22
	Customer complaints	0	0		Page 21
Energy saving and natural resources	Specific water consumption*	Improvement vs best performing year since 2014 benchmark (2015)	+12%		Page 18
	Specific electricity consumption*	Improvement vs. best performing year since 2014 benchmark (2014)	-4%		Page 17
	Specific Gas Consumption*	Improvement vs. best performing year since 2014 benchmark (2014)	+8%		Page 17
	% Recycled conventional material	Year on year comparison	+7%		Page 20
Health & safety, safeguards and security	Lost time injury rate	≤ 0.20	0.12		Page 15
Employer of choice	Regular employee survey	To be conducted in 2017			Not included
Community engagement	Science education through the Richie educational programme	30,000 students	33,810		Page 27
Asset integrity		No external KPIs reported			Not included

\*Only enrichment sites; other contributions negligible.

- Achieved
- Not achieved
- On target



**Our sustainability strategy guides the way we manage our business, helping us balance our commercial interests with our commitments to society and the environment. As part of this strategy, we have developed six sustainability focus areas.**

In 2015, we introduced KPIs leading to an improvement in the way we monitor and report on progress in our sustainability focus areas, and in 2016 we refined this process further through enhanced data quality, analysis and validation.



### Materiality

URENCO's Sustainability report is guided by the GRI, in accordance with the G4 Core option.

The main focus of the G4 guidelines is 'materiality', which means those 'aspects' or topics which are most relevant to our operations. Materiality is an important issue and enables us to focus on our company's biggest challenges.

Under GRI definitions, relevant aspects are those that "may reasonably be considered important for reflecting [an] organisation's economic, environmental and social impacts, or influencing the decisions of stakeholders". 'Materiality' is the threshold at which aspects become sufficiently important to merit inclusion within a report.

### Determining material aspects

In 2015, we conducted an in-depth materiality analysis as part of a wider reputation audit. Drawing on existing stakeholder data, and taking into account key issues raised during stakeholder engagement activities, this process enabled us to understand stakeholder perceptions of URENCO's sustainability agenda. Crucially, it also helped us to identify a number of material issues which we believe are relevant to our business, and reconfirmed the relevance of our six sustainability focus areas.

### Priority and monitor aspects

In accordance with GRI G4 best practice, our materiality analysis also involved establishing thresholds to help us ascertain which material issues are a priority (priority aspects), and which need to be monitored (monitor aspects); see opposite page for details. Following the extensive materiality assessment conducted in 2015, in 2016 we asked customers, investors, suppliers and employees to review and rate our materiality aspects. This consultation resulted in some changes to our priority and monitor aspect categories, reinforcing our commitment to materiality as an evolving process of engagement and assessment.

# Focus Areas

## Materiality and Risk

Aspects	Boundary
Priority aspects	
Asset integrity	Inside the organisation
Economic performance	Inside and outside the organisation
Emissions	Inside the organisation
Noise*	Inside and outside the organisation
Political landscape*	Inside and outside the organisation
Public education*	Inside and outside the organisation
Safety	Inside and outside the organisation
Science education	Inside and outside the organisation
Transport	Inside and outside the organisation
Monitor aspects	
Diversity **	Inside the organisation
Energy savings and natural resources	Inside the organisation
Employee engagement <sup>7</sup> **	Inside and outside the organisation
Innovation, technology and R&D	Inside and outside the organisation
Investment in local areas	Inside the organisation
Opportunities in new markets	Inside and outside the organisation
Regulatory requirements (safeguards/security)	Inside and outside the organisation
Waste (including nuclear material for disposal) **	Inside the organisation
Workforce skills gap	Inside and outside the organisation

Each aspect fits within one of URENCO's six sustainability focus areas, which you can read about on the following pages. Each focus area is monitored and reviewed by a Sustainability Sponsor.

### Principal risks and uncertainties

Risk management and mitigation is a key priority for URENCO. We work hard to raise risk awareness and have developed a range of measures to help identify, manage and mitigate potential risks and threats which could impact our business. As part of our Governance, Risk and Control framework, we follow best practice and ensure we comply with all relevant legal requirements.

Operating in a heavily regulated industry, we focus on early identification of risks and implementing appropriate risk evaluation and mitigation or avoidance strategies. Our Executive Risk Management Committee reviews the Group's top risks, their controls and planned actions, and reports back to the Audit Committee and Board on a regular basis.

More information on our principal risks and our Risk Management Framework can be found in our Annual Report 2016 on pages 18-21.

\* Moved to 'priority aspects' in 2016

\*\* Moved to 'monitor aspects' in 2016

<sup>7</sup> Employee wellbeing was renamed Employee Engagement in 2016

# Focus Areas

## Materiality and Risk

### Focus Area 1:

#### Health and safety, safeguards and security



**Health and safety, safeguards and security are critical to the long-term sustainability of URENCO. We aim for continuous improvement in our policies, processes and performance within this focus area.**

Safety is our number one priority and a material aspect for our business. As such, it is a vital element of our culture for all employees and contractors, and we uphold the highest standards of safety across the organisation.

#### Health

The health of our employees and contractors is extremely important to us, and we have developed a range of measures to help keep our people fit and well. These include flexible working arrangements to minimise workplace stress, and subsidised gym membership and health checks at a number of sites. We also provide monthly wellness newsletters, quarterly health challenges, employee assistance programmes, sports, healthy eating activities and general health incentive schemes.

#### Safety (priority aspect)

Safety at URENCO is overseen by the Chief Operating Officer and, in his capacity as Executive Safety Sponsor, the UK Managing Director. Health and safety meetings are held regularly throughout the year. On a day to day basis, accountability is locally assigned. Each enrichment facility has a Head of Compliance supported by an Health and Safety Executive (HSE) team, which in turn works with our Group Health and Safety Manager.

As part of our commitment to continuous improvement, HSE issues and developments are reported at each meeting of the Sustainability Committee. The URENCO Board and senior management evaluate our overall approach to safety and improving safety performance across all areas of the business. We have a standing agenda item at senior management meetings in order to review progress and share ideas on best practice in delivering improvements to safety.

Our ZERO HARM campaign is a core part of our safety culture and covers all aspects of safety. Launched in 2014, it has enabled us to further develop safety behaviours and values across the organisation. It includes quarterly communications to employees around the ZERO HARM principles, plus monthly features on specific safety issues relevant to URENCO. In 2016, the theme for the year within the ZERO HARM campaign was 'Let's Get Personal', which sought to encourage employees to take ownership of and responsibility for their personal safety at work. Key ZERO HARM activities during the year included:

- Monthly communications reinforcing the 'zero tolerance' message
- Half day safety sessions across all sites
- Compliance focused desktop training sessions
- Hazard awareness training for office and operational environments
- Safety stand down days held at each site.

# Focus Areas

## Materiality and Risk

To support the delivery of ZERO HARM, in 2016 we continued to roll out our Safety Plan, building on the progress made in previous years and committing further resources in this area. Launched in April 2015, the plan encompasses:

### **Leadership visibility and commitment to safety**

Leaders 'routinely and frequently' spending time in the business interacting with workers, talking openly about the importance of safety and carrying out safety spot checks and process confirmation audits.

### **Cross-site health and safety audits**

Independent reviews and audits of each site's health and safety management arrangements.

### **Significant event learning**

Reviews of Business Critical Incident reports, with sites demonstrating how to mitigate any future occurrence.

### **Safety days**

Site-specific and culturally relevant safety days held across the organisation to promote employee and contractor engagement with key issues.

### **Safety communication strategy**

Alignment of cross site safety communications for all significant incidents.

### **Standards and expectations**

Introduction of company wide safety-orientated standards and expectations.

Despite our coordinated efforts within the Plan, in 2016 we continued to experience safety incidents, with five Lost Time Incidents (LTIs) compared to six in 2015. To help us understand why these issues occur, we are conducting a causal analysis<sup>8</sup> of all incidents. We also increased the number of senior management engaged in daily site walk-arounds, enhancing our visible leadership at local level in this critical issue area. Observing on-site activities, these senior managers perform the vital role of commanding good safety behaviour as well as identifying opportunities for improvement.

### **Lost Time Incidents (LA6)**



During the year, we also focused on contractor management and assessment. Our aim was to look at how contractors are supervised and to empower them to challenge unsafe behaviours. As part of this scheme, we employed an external auditor, overseen by an executive sponsor, to conduct a site by site contractor analysis.

### **Sustainability KPIs for health and safety:**

- Target:  
LTI rate  $\leq 0.2$
- Actual: 0.12

GRI: LA6 – see page 42.

### **Key activities and initiatives that address this material aspect:**

- HSE reported on at each meeting of URENCO's Sustainability Committee
- On site senior executive engagement with safety issues
- Development of Safety Plan to support the ongoing delivery of ZERO HARM
- In depth, cross site health and safety audits
- Regular briefings, seminars and talks on all sites.

### **Radiological safety**

The centrifugal process involves physically separating the lighter isotope of uranium, U<sub>235</sub>, from the heavier isotope, U<sub>238</sub>. Enriching uranium does not involve changing its chemical characteristics and no additional radiation is created during the process. The operational hazards associated with our facilities are more similar to those of a chemical facility than a nuclear facility.

In the UK, Public Health England has calculated that, on average, people are exposed to about 2.7 millisieverts (mSv) of radiation a year from naturally occurring sources in homes and workplaces and medical exposures, including X-rays.<sup>9</sup> Many people who visit our sites for the first time are surprised at how low the levels of radiation involved in uranium enrichment actually are. Across all our enrichment facilities, radiation protection teams monitor and manage radiological safety to ensure that exposure levels are kept to an absolute minimum.

For radiation dose rate, see page 46.

<sup>8</sup> "The basic principle of causal analysis is to find causes that you can treat rather than treating symptoms. A root cause is the basic reason why something happens and can be quite distant from the original effect. Removal of the root cause would prevent recurrence, whereas a causal factor is one that affects an event's outcome, but is not a root cause. Though removing a causal factor can benefit an outcome, it does not prevent its recurrence with certainty." Wilson, Paul F.; Dell, Larry D.; Anderson, Gaylord F. (1993). Root Cause Analysis: A Tool for Total Quality Management. Milwaukee, Wisconsin: ASQ Quality Press. pp. 8-17

<sup>9</sup> Public Health England, March 2011, [www.gov.uk/government/publications/ionising-radiation-dose-comparisons/ionising-radiation-dose-comparisons](http://www.gov.uk/government/publications/ionising-radiation-dose-comparisons/ionising-radiation-dose-comparisons)

# Focus Areas

## Materiality and Risk

### Regulatory requirements – safeguards (monitor aspect)

Our dedicated safeguards culture ensures that our work is carried out safely and within specific, internationally approved standards as governed by law. Enrichment is a proliferation-sensitive element of the nuclear fuel cycle and requires an effective non-discriminatory safeguards regime to promote the peaceful application of nuclear power.

We consider non proliferation aspects throughout all our business areas, from contract negotiations through to implementation of operational procedures. Our Group Head of Safeguards reports directly to our Chief Operating Officer, who keeps our executive team fully informed of all activities in this area. We have many years' experience in the development and implementation of safeguards regimes at our enrichment facilities.

In 2016, we continued to participate in and support key international safeguard bodies, such as the IAEA, EURATOM, European Safeguards, Research and Development Association (ESARDA) and the Institute of Nuclear Materials Management (INMM), and to abide by their stringent standards. We participated in the Nuclear Industry Summit in Washington DC, which focused on the use, storage and transport of strategic nuclear materials. We also hosted events and allowed industry field trials of new technology designed to improve safeguard measures to take place at our facilities.

### Key activities and initiatives that address this material aspect:

- Compliance with all industry and regulatory standards
- Engagement with key international safeguard bodies.

### Regulatory requirements – security (monitor aspect)

The security of our sites and operations is paramount, and URENCO invests significantly in measures to protect our physical assets, personnel, IT systems and infrastructure. Such measures include rigorous screening processes and stringent on-site security precautions, as well as controls to address information security requirements in both IT and operational technology. We comply with all relevant industry and regulatory standards and maintain various security certifications for people, processes and technology.

In 2016, we increased our focus on the threat posed by cyberattacks and phishing scams, working with external IT partners to improve our defensive capabilities and preparedness. The majority of our European enrichment facilities are certified to ISO 27001.

### Key activities and initiatives that address this material aspect:

- Rigorous screening processes and induction for all site employees and visitors
- Stringent on site security measures and precautions (e.g. no cameras or recording equipment)
- Training for employees in security controls and requirements.

# Focus Areas

## Materiality and Risk



### Focus area 2: Environmental impact



#### We are committed to minimising our environmental impact and continue to achieve greater efficiencies across our business.

We undertake a range of initiatives to help reduce our impact on the environment, focusing on energy efficiency, emissions, waste and water usage. Our company wide Energy Savings Group (ESG) is responsible for driving action, accountability and engagement in energy efficiency and optimisation. Three times a year, the ESG convenes meetings to share learnings and propose initiatives to minimise energy usage. Our environmental priorities are administered by the compliance function at each of our enrichment facilities. The Sponsor of this focus area is our Managing Director of URENCO Deutschland.

#### Energy savings and natural resources (monitor aspect)

In 2016, we achieved a reduction in specific electricity consumption of more than 4%, compared to our best performing year (2014). This was driven by our TC21 centrifuge energy efficiency programme in Germany and the USA and by a withdrawal from service of one of the older centrifuge units at our Capenhurst facility, which was no longer performing at a commercially viable level. In addition, the savings can be attributed to economies of scale in the USA. The TC21 centrifuge energy efficiency rollout in the USA was completed at the end of 2016 and is expected to deliver a 2% reduction in site specific electricity consumption in 2017. We are currently assessing the feasibility of similar efficiency improvements for our TC12 centrifuges.

Energy efficiency has been a key focus for our business in recent years, and our commitment in this respect continues. However, all future initiatives will need to be carefully considered to justify their economic viability.

#### Emissions (priority aspect)

Nuclear energy is inherently low emission, particularly in terms of CO<sub>2</sub> emissions. If nuclear power generation were to double as part of our global electricity mix, CO<sub>2</sub> emissions from total electricity generation would drop by 25%.<sup>10</sup>

As part of our commitment to reduce our impact on the environment, we monitor aspects such as emissions, water usage and waste. These aspects are considered material by our stakeholders and will therefore remain the focus of our reporting activities in this area. We also work closely with regulators to ensure we fully comply with relevant legal obligations.

#### Sustainability KPIs for energy savings and natural resources

##### Specific gas consumption

- Target: Improvement vs best performing year since 2014 benchmark
  - Actual:
- Specific gas consumption increased by 8% compared with previous best performing year (2014).

The rise in specific gas consumption in 2016 can be explained by an increase in building heating demand at our European enrichment facilities due to colder weather conditions vs the target year. Gas consumption is being monitored on a building by building basis. Any unexpected increases in consumption are investigated.

The replacement of older boilers at our facilities in Germany and the Netherlands would help reduce consumption, the business case for which is currently being assessed.

##### Specific electricity consumption

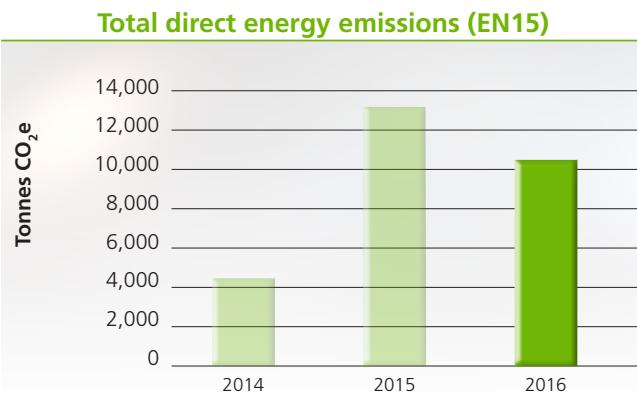
- Target: Improvement vs best performing year since 2014 benchmark
  - Actual:
- Specific electricity consumption reduced by more than 4% compared with previous best performing year (2014).

GRI: EN15/EN16 – see page 41.

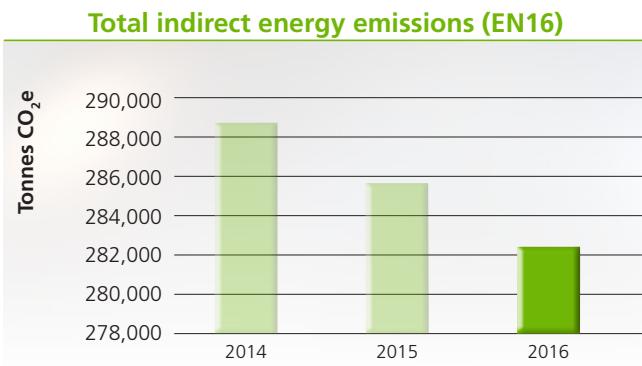
<sup>10</sup> World Nuclear Association, Uranium, Electricity and Climate Change (2012): [www.world-nuclear.org/information-library/energy-and-the-environment/uranium,-electricity-and-climate-change.aspx](http://www.world-nuclear.org/information-library/energy-and-the-environment/uranium,-electricity-and-climate-change.aspx)

# Focus Areas

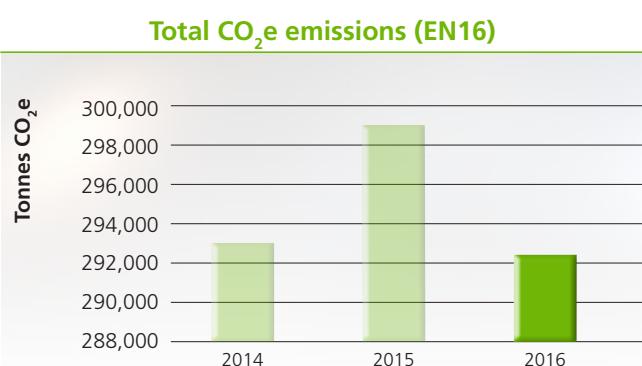
## Materiality and Risk



In 2016, at our German enrichment facility we used less refrigerants in the cooling process on a one off basis and in the UK we improved maintenance processes, which have led to a reduction in direct energy emissions.



The reduction in indirect energy in 2016 has been driven by our TC21 centrifuge energy efficiency programme in Germany and the USA and by a withdrawal from service of one of the older centrifuge units at our Capenhurst facility in the UK.



### Key activities and initiatives that address this material aspect:

- Boiler replacement programme in the UK, leading to a 10% reduction of specific natural gas consumption compared to 2014
- UF6 cold traps efficiency improvements, currently being trialled at our German site
- Positive revalidation of the voluntary Eco Management and Audit Scheme (EMAS) to improve overall environmental performance at our German enrichment facility.

### Environmental certification

All our enrichment facilities are certified to ISO 14001, and we will also seek ISO 14001 certification for the TMF in the UK. In Germany, our facility is also EMAS validated.

### Water

Across all URENCO sites we undertake a range of initiatives to monitor and minimise water usage and limit our waste water discharge. For example, in 2016 we introduced cooling tower management improvements in the USA, which reduced water usage in operations by more than 5%. However, during the year we saw an increase in specific water consumption by 12%, which is due to our USA facility requiring unprecedeted water supplies to combat dust and landscaping during site improvement works. At our European sites there was a small increase of less than 5% due to warmer weather.

### Sustainability KPIs for water

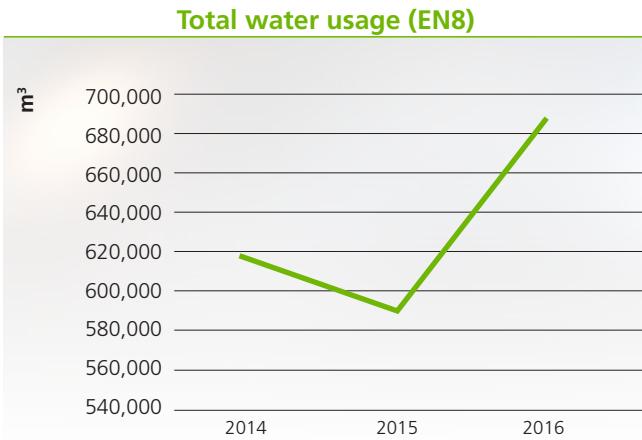
#### Specific water consumption

- Target:  
Improvement vs. best performing year since 2014 benchmark year
  - Actual:
- Specific water consumption increased by 12% compared with previous best performing year (2015)

URENCO's water consumption is primarily a result of the centrifuge cooling process in the UK, USA and the Netherlands. Water consumption can only be reduced by improving the efficiency of these cooling towers. We are currently trialling a modified cooling water system at our facility in the Netherlands, which should save electricity and water. If successful, a business case will be required to justify rollout across the organisation.

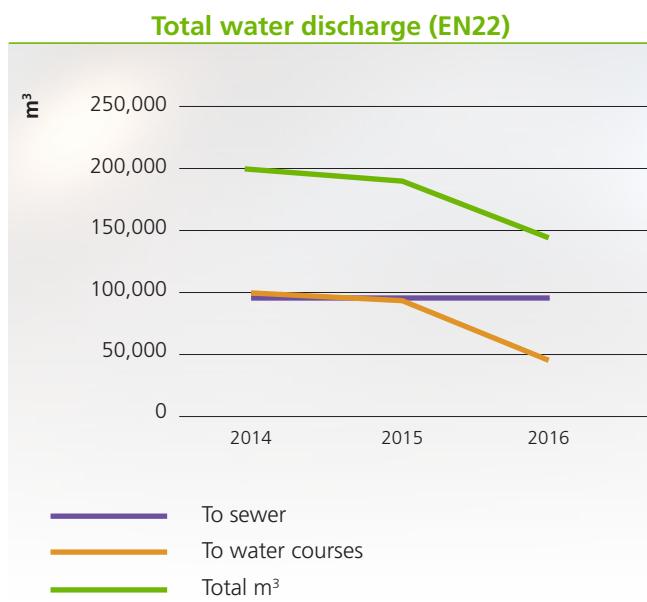
# Focus Areas

## Materiality and Risk



In 2016, our total water usage increased by 16%. Two factors contributed to this increase, one project related, which has since been completed, and the other related to our process, for which a subsequent improvement has already been implemented.

GRI: EN8/EN22 – see page 43.



### Key activities and initiatives that address this material aspect:

- Cooling tower improvements in the USA
- Design of new waste water cleaning system for URENCO Nederland's Recycling Centre, offering increased capacity and efficiency.

### Waste (monitor aspect)

Waste is deemed material to URENCO's business. In order to ensure we monitor levels of waste, we have processes in place to distinguish between (i) operational waste, (ii) waste arising from construction and other activities, and (iii) low radioactive material requiring offsite disposal.

Both (i) and (ii) above include hazardous and non-hazardous waste.

We have several subsidiary companies dedicated to overseeing our uranium stewardship initiatives, and we play an important role in this area. In 2016, URENCO generated less than 1,550m<sup>3</sup><sup>11</sup> of low radioactive material for offsite disposal.

### Tails Management Facility (TMF)

The construction of our Tails Management Facility at our Capenhurst site in the UK is part of our commitment and leadership in responsible uranium stewardship. Once complete, it will consist of various storage, maintenance and residue processing facilities to support our strategy for managing the deconversion of tails to stable uranium oxide (U<sub>3</sub>O<sub>8</sub>). The project management team continues to work through the challenges of the project. While risks remain in terms of cost and schedule, we anticipate the commissioning of the TMF for late 2017/early 2018.

The construction of the TMF has also entailed a great deal of community engagement and consultation. In response to concerns about noise pollution, our teams were assiduous in reducing any noise inducing out of hours work. They also carried out proactive traffic management to ease congestion and ensure minimal disruption to local residents.

In addition, we run a range of decontamination, storage and waste minimisation initiatives.

### Capenhurst Nuclear Services (CNS)

CNS is responsible for the management of uranic materials, decommissioning and recycling. A UK based, wholly owned URENCO subsidiary, CNS has specific experience in the field of uranic stewardship, management and storage.

Since 2012, CNS has been providing a dedicated service to the Nuclear Decommissioning Authority (NDA) for the responsible management of uranic materials and remediation work at the Capenhurst site on its behalf. Under this contract, CNS manages the bulk of the NDA's uranic inventory.

In 2016, following a rigorous site selection process, CNS was selected by the Ministry of Defence (MOD) to store and manage the Reactor Pressure Vessels (RPVs) from 27 de-fuelled nuclear submarines. Delivery of the RPVs will begin in the early 2020s. These contracts highlight CNS's capabilities in the management of nuclear materials.

CNS is currently undertaking a project to design and construct a new Legacy Cylinder Facility (LCF). With operations expected to start by 2020, the LCF will be designed to carry out the transfer of nuclear materials from existing into current cylinders. Nuclear materials will be filtered to remove impurities and then cleaned and readied for disposal.

<sup>11</sup> CNS has now been included in this overall figure, which explains the increase from 2015 to 2016

## Focus Areas

### Materiality and Risk

In April 2016, CNS was approved planning permission for the new facility by Cheshire West and Chester Council, which was an important milestone in the project. It continued to make good progress throughout the year towards finalising the design of the LCF, as well as land remediation and site preparation.

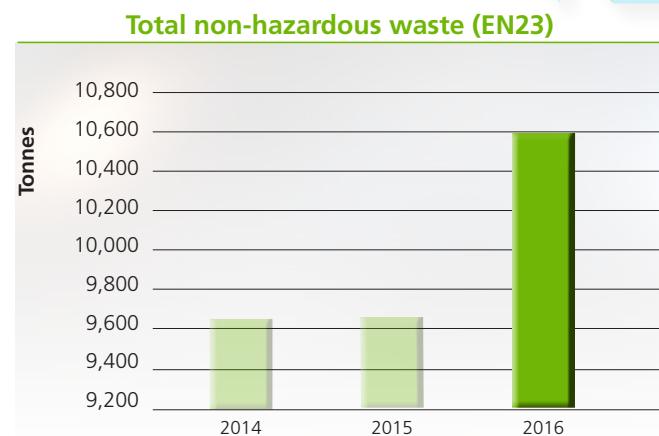
In 2017, CNS will be further progressing decommissioning activities at the Capenhurst site.

#### Sustainability KPIs for waste

- % of recycled conventional material Target: Year on year comparison
- Actual:  Increased by more than 7%

In 2016, we increased our recycling due to maintenance and building activities undertaken in the year.

GRI: EN23– see page 44.



Our hazardous/non-hazardous waste has increased in 2016 due to project work taking place at our CNS facility, including asbestos removal related to the demolition of a substation. In addition, there was increased waste at our USA facility from the replacement of batteries and oil filters, which were then recycled.

#### Key activities and initiatives that address this material aspect:

- Completed design of URENCO Nederlands Recycling Centre for UF6 cylinder cleaning and water treatment. Offering increased capacity and efficiency, the centre should be in operation in 2017
- Completion of programme to decontaminate final batch of centrifuges from the former enrichment plant SP3 in the Netherlands.

# Focus Areas

## Materiality and Risk



### Focus Area 3: Supplier of choice



**The strength of our customer relationships is a great source of pride to everyone at URENCO. The quality, flexibility and reliability of our enrichment services mean we are well placed to meet the needs of our customers.**

URENCO is committed to being a long term partner to the nuclear industry, and the supplier of choice to our customers and the wider supply chain. As a result, excellent customer service continues to be a key priority.

In 2016, we maintained our 100% record for customer deliveries, meeting all orders on time and to exact specification. We also received no complaints regarding product quality, and as part of our commitment to continuous improvement we commenced a project to upgrade our quality management system to 9001:2015 in 2017.

URENCO's Sponsor for this focus area is our Executive Director, Commercial.

#### Customer engagement and satisfaction

The long term success of our business depends upon our ability to respond to customers' needs. We work closely with our customers, regularly consulting them on our service and performance to ensure we continue to meet their requirements.

#### Sustainability KPI for supplier of choice

Customer complaints

- Target: 0
- Actual: ✓ 0

#### Meeting customer needs in changing market environments

The build up of worldwide inventories and current oversupply of enriched uranium continue to create challenging market conditions, impacting price and demand. In this challenging environment, URENCO's focus on quality and reliability ensure customers receive the best possible support. Indeed, during this period our focus is on deepening and reinforcing our long term customer relationships.

In the USA, we continued our transition from Phase III capacity expansion. The capacity at URENCO USA (UUSA) now stands at 4.7 million SWU. Regulatory approval has been received to expand in the future should it be required, placing us in a strong position to meet customer requirements. As UUSA continued to ensure seamless delivery to its customers, in 2016 it also secured an export licence for a shipment of nuclear material, delivering to a customer in the Asian market.

# Focus Areas

## Materiality and Risk

### Economic performance (priority aspect)

In order to be sustainable as an organisation, we have to deliver economic stability and commercial success. Our economic performance is therefore a key material aspect within the GRI framework. Each year, the organisation's financial goals are set out in the company's annual business planning process, and our financial strategy is presented to all employees at a roadshow led by our CEO and Chief Financial Officer. Our Board carries ultimate responsibility for the economic performance of the company.

URENCO's financial results in 2016 reflect a good operational performance driven by our current order book. Our revenue and EBITDA for the year increased to €1,893.0 million and €1,170.0 million respectively. We experienced a net loss of €456.3 million as a result of adverse foreign exchange movements, the exceptional items recorded for the impairment of our USA operations and the restructuring cost. Our order book contains orders which extend to the second half of the next decade, with a value of approximately €15.5 billion, and we are now focused on making the best use of URENCO's financial strength in the near term to ensure our long-term sustainability.

For more information on our economic performance, see pages 32-124 of our Annual Report 2016.

Given the challenging market conditions, we are committed to identifying growth opportunities in existing and new markets. In 2016, we also began to look at expanding our partnerships to further leverage URENCO's capabilities.

We also continue to support local economies through our employment of local people and the indirect economic impacts on the communities where we operate. In addition, we provide practical and financial support through a range of sponsorship and donation activities.

GRI: EC1 – see page 40.

### Key activities and initiatives that address this material aspect:

- Strong operational performance in 2016
- Revenue and EBITDA in line with management expectations
- Implementation of strategic review.

### Transport (priority aspect)

The safe and reliable transportation of nuclear materials is vital to the success of our business. Our 100% customer delivery record depends upon our ability to deliver products to customers from our four enrichment facilities. We are therefore rigorous in our efforts to ensure total transport reliability. For product deliveries from our European sites, we use intermodal transportation, utilising road and sea, while in the USA we use road only. Responsibility for the transportation of our uranic materials lies with URENCO's Commercial department and supply chain partners.

The safe behaviour of our transportation partners is guided by the standards we set at URENCO. Such standards reduce the risk of an accident or the misappropriation of sensitive materials.

We only place contracts with approved companies and ensure we perform regular contract and performance monitoring audits. We adhere to IAEA guidelines and all other national and international regulations regarding the transportation of fissile material, and we go beyond regulatory requirements in aspects of our own logistics procedures.

In 2016, our Commercial team conducted visits to port authorities in the USA and Europe, looking to ensure, through education and awareness, that uranic materials continue to pass unhindered through key port facilities.

While it is too early to tell what the full impact of the UK's decision to leave the EU will be, in 2016, we took a proactive approach to this issue by setting up a Working Group dedicated to assessing all potential impacts and implications, and supporting industry associations through participation in some of their various sub groups. Should the UK's exit from the EU affect access to transport routes within Europe, our Working Group will ensure we have a voice in these discussions and are well placed to protect our customers' interests.

### Sustainability KPI for supplier of choice

Missed deliveries

- Target: 0
- Actual:  0

In 2016, we emitted

**4,220 tonnes of CO<sub>2</sub>e**

from the transportation of our uranic material.

GRI: EN30 – see page 42.

### Key activities and initiatives that address this material aspect:

- 100% customer delivery on time and in full
- Deliveries planned well in advance to maximise efficiency
- EU Referendum Working Group formed to manage any potential transport risks in Europe.

# Focus Areas

## Materiality and Risk

### Innovation, technology and R&D (monitor aspect)

A key pillar of our new strategy is to leverage our technological capabilities to serve the nuclear industry more broadly. We focus on innovation, technology and R&D in order to adapt to changes in market conditions, improve efficiencies across our operations and meet customer requirements.

Our aim is to align our R&D programmes to both present needs and future opportunities, and our management team is continually monitoring market developments and consulting with customers and other stakeholders.

A key example of our progress in this area is the work of Stable Isotopes, our Dutch based business unit that employs our centrifuge technology to produce a variety of products for medical, industrial and research applications. During 2016, Stable Isotopes saw an increase in demand for several of its products, and it introduced new products this year as part of its general portfolio expansion. New applications for enriched stable isotopes continue to be developed, and Stable Isotopes is actively engaged in discussions with customers on how to support this growing demand. For more information on Stable Isotopes, visit:

[www.urenco.com/about-us/company-structure/urenco-stable-isotopes/](http://www.urenco.com/about-us/company-structure/urenco-stable-isotopes/)

Elsewhere, in the USA we commenced operations in our new Technology Centre (UTC) to help increase our technological capabilities as a supplier of choice to further improve the engineering and operations of our plants. The current project underway at UTC is the deactivation of activated carbon trapping material, which allows us to remove activated charcoal to improve our plant filtration process.

We are also considering the potential application for small modular reactors (SMRs) and continue to work within a consortium of industry partners on U-Battery, a micro nuclear reactor which will be able to produce local power and heat for a range of energy needs. There is a market opportunity for micro-modular reactor technology, which URENCO believes will be an important part of our future low carbon, sustainable energy landscape.

### Key activities and initiatives that address this material aspect:

- New strategic focus on leveraging technological capabilities
- Developing products for use in industry, medicine, research and science
- Opening of UTC in the USA
- Ongoing development of U-Battery with industry partners.

### Opportunities in new markets (monitor aspect)

To ensure the long-term success and sustainability of URENCO, we are committed to identifying growth opportunities in new markets so that we remain a secure, long-term partner to our customers. Our management approach to new market opportunities includes focusing on traditional nuclear enrichment as the core of our business. Having the knowledge, flexibility, skills and funds in place to support the next generation of nuclear reactors is a key business priority.

We closely monitor growth in global nuclear markets and fully research all business opportunities if considered commercially viable.

See pages 14-15 of our Annual Report 2016 for more information on emerging nuclear markets.

### Key activities and initiatives that address this material aspect:

- Strategic focus on new markets
- Presence at conferences and events in emerging markets.

# Focus Areas

## Materiality and Risk



### Focus Area 4: Employer of choice



URENCO aims to develop a capable and engaged workforce. We employ talented people who can help us deliver outstanding customer service and achieve long term commercial success.

Our Sponsor for this focus area is our Head of Human Resources, who is supported by HR teams across the organisation.

#### Employee engagement (monitor aspect)

Employee engagement, through workplace policies and practices, will be a key area of focus in the year ahead in order to retain and attract skilled and talented individuals.

We monitor employee satisfaction through a company wide employee survey, which takes place every two years. Survey results are shared with employees, and each of our business areas take ownership to respond to the survey findings.

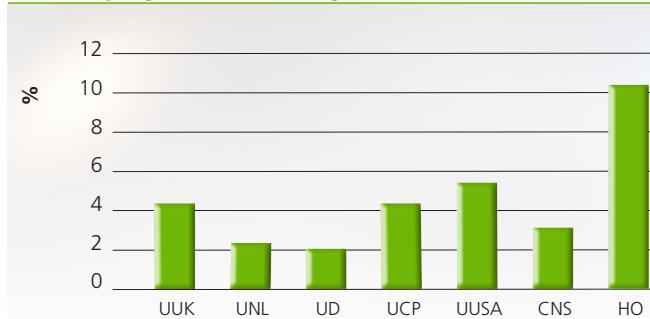
In 2016, internal employee engagement has been key to communicating the outcomes of the strategic review to our workforce. An engagement plan has been put in place, which seeks to engage and initiate two way dialogue with our employees in order to create an awareness and understanding of the new strategic direction of the organisation.

Throughout the year, URENCO engaged in positive interactions with staff and trade union representatives, discussing these issues in an open and transparent way. We upheld our commitment to clear communication through direct engagement, physical presentation, intranet announcements, letters, briefings and face to face consultations, ensuring people were kept informed and updated on these critical developments. We also continued to respect our employees' rights to freedom of association and collective bargaining.

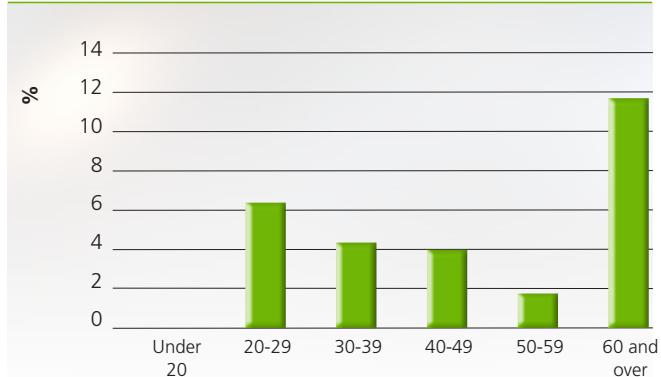
URENCO is committed to providing timely and accurate communication to our employees throughout the strategic review process to ensure our people are kept informed and engaged in the decisions that will affect our company's future.

GRI: LA1 – see page 43.

**Employee turnover by location 2016 (LA1)**



**Employee turnover by age 2016 (LA1)**



For comparative years, see page 47.

# Focus Areas

## Materiality and Risk

### Key activities and initiatives that address this material aspect:

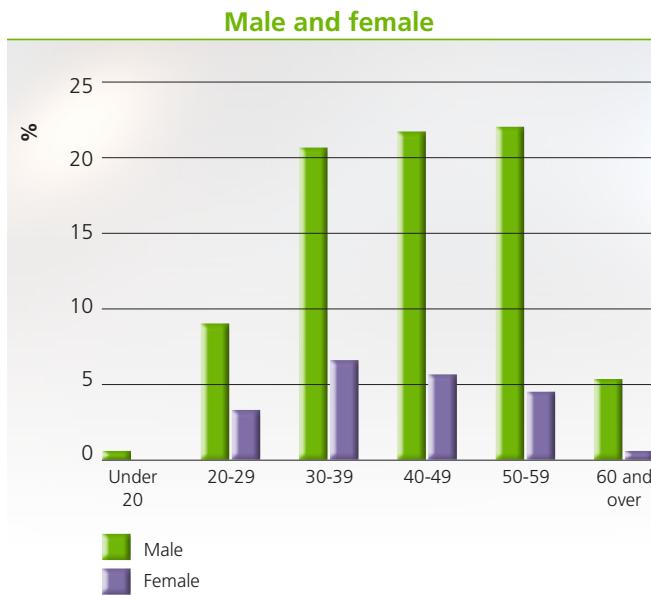
- All Hands Meeting and employee roadshows
- Strategy email address where employees can anonymously post their ideas and questions
- Ongoing efforts to challenge, motivate and engage our employees.

### Diversity (monitor aspect)

Our diverse workforce enables us to attract a broad range of talent into the business. We have activities in place that promote diversity and inclusion. Through a range of programmes and initiatives, we encourage diversity and, in particular, reach out to young female scientists of the future.

GRI: LA12 – see page 42.

### Employees by age and gender 2016 (LA12)



For comparative years, see page 48.

### Key activities and initiatives that address this material aspect:

- Richie Programme reaching out to young people in local communities across all of our facilities
- Women's Network at our UK facility
- Science, Technology, Engineering and Maths (STEM) activities
- Apprenticeship and internship programmes across the Group
- Girls' Day activities in the Netherlands
- 'Women in Engineering' careers fairs held at local schools in the UK
- Women's Symposium supporting women in business in the USA.

### Performance management

Our Performance Management System provides a strong framework for developing employees' skills and enhancing their performance. Within this system, we set annual expectations for each employee, identify areas for improvement and outline plans for future roles, relevant training and development activities.

In 2016,

**100% of our employees**

participated in an annual appraisal, during which their performance was reviewed.

### Workforce skills gap (monitor aspect)

Our HR function monitors our workforce capabilities against our operational requirements. Through apprenticeship schemes, graduate programmes, performance management and training, we work to ensure we have the capabilities to sustain our business over the long term, and address any skills gaps that could potentially exist in the future.

In 2016, at our USA facility, we continued to support internships for local students covering universities such as the University of New Mexico and the University of Texas to name a few. During the year we had 16 interns complete the USA internship programme. In the UK at our CNS business, we had eight apprentices go through the apprenticeship programme, both in engineering and business administration. At our UK facility, seven apprentices went on to join the company in roles within operations, maintenance and infrastructure.

We continued to focus on succession planning for key positions across the organisation, to ensure we have the right skills and experience at senior levels.

### Key activities and initiatives that address this material aspect:

- Monitoring of workforce capabilities
- Rigorous performance management
- Organisation wide succession planning activities.

### Human rights

We are fully committed to upholding human rights in all areas of our business. We treat any discrimination incident seriously, and we have developed comprehensive complaints and grievance procedures, in line with the UN Guiding Principles, for all employees.

### Anti-bribery and corruption

URENCO adopts a zero-tolerance approach to bribery and corruption, and all employees are required to adhere to stringent anti-bribery and corruption policies and procedures. We conduct regular communications and awareness campaigns on these issues, as well as regular e-based training. All employees are made aware of our focus and commitments in these areas.

# Focus Areas

## Materiality and Risk



### Focus Area 5: Community engagement



Wonderlab: The Statoil Gallery © Plastiques Photography, courtesy of the Science Museum

**URENCO considers itself a good corporate citizen and provides regular transparent communications and regular dialogue with community stakeholders.**

The Sponsor for this focus area is our Director of Corporate Communications.

#### Investment in local areas (monitor aspect)

The provision of practical and financial support enables us to assist with sustainability initiatives in local areas in which we operate. Our support for local stakeholders takes the form of employee volunteering and engagement with residents' groups, schools and charities; fundraising via sponsored sporting events and community projects; and corporate donations. In our targeted donations and investments, we focus on those areas where we make the biggest difference, for example, the advancement of education, health and environmental protection.

At each URENCO facility, our Communications teams take responsibility for ensuring all donations are aligned to company policy.

GRI: EC7 – see page 43.

#### Volunteering

In 2015, we launched a volunteering policy to help strengthen relationships with local communities and enhance employees' teamwork and leadership skills.

In 2016, employees across the organisation took advantage of the policy, which provides eight hours per year for dedicated volunteer community activity. We offered a number of organised events throughout the year at each of our facilities, which resulted in

**37% of employees volunteering**

in the local community.

#### Key activities and initiatives that address this material aspect:

- Free theatre and football tickets for disadvantaged families in Almelo as part of efforts to tackle social isolation
- UUK sponsorship of ten local schools to participate in Beach School, a hands on environmental education initiative
- 9-11 day of service to offer practical support to the city of Eunice
- Local scout camp near our Head Office facility in the UK benefited from URENCO volunteers helping to improve their outdoor facilities
- A group of employees spent a day redecorating a local facility in the UK, Barrowmore House, which offers supported accommodation for people with disabilities
- In the Netherlands, more than 100 employees spent a day cleaning and redecorating the houses of disadvantaged families and conducting social events with elderly people.

#### Public education (priority aspect)

As part of our commitment to sustainability, we aim to increase public understanding of the nuclear industry, and to communicate the important role it plays in supplying reliable, low carbon energy. Through education and dialogue, our goal is to shift public opinion about nuclear energy and build long-term support for our company and our sector.

Our Director of Corporate Communications oversees our work in this area, helping to coordinate partnerships with industry peers for the provision of public education initiatives.

In 2016, we hosted more than

**6,865 visitors at our enrichment facilities,**

including local interest and community groups, government representatives, industry peers and customers. At our site in the Netherlands, we hosted a Discovery Open Day for 600 visitors, while in Germany our team continued to engage regularly and openly with local pressure groups and NGOs.

## Focus Areas

### Materiality and Risk

In the UK, we took part in council meetings and town hall events, while our CEO and other senior figures participated in nuclear conferences and seminars around the world, including the Nuclear Industry Summit in Washington, DC. and the European Nuclear Energy Forum in Bratislava.

In October 2016, we took part in Nuclear Science Week, a week long celebration in the USA focusing on all aspects of nuclear science – supporting our customers and industry partners in their efforts to engage with the public through a series of sponsored Richie science workshops. This work was part of our efforts to expand Richie's international presence and enhance science education around the world.

For those who do not have the opportunity to visit our sites in person, we continued to provide virtual site tours via our corporate website at [www.urencocom/about-us/virtual-tour](http://www.urencocom/about-us/virtual-tour). In addition, our innovative virtual reality headsets, launched in 2015, featured at numerous public events and exhibitions, enabling users to experience the inner workings of a centrifuge. The headsets have received fantastic feedback and have been effective in increasing understanding of what we do with new audiences.

GRI: SO1– see page 41.

#### Key activities and initiatives that address this material aspect:

- Hosted site visits and tours at our enrichment facilities
- Regular engagement and discussion with community groups and other interested parties
- Remote access and insight to sites via virtual reality technology.

#### Science education (priority aspect)

URENCO is committed to promoting science education and nurturing the next generation of scientists and engineers. Our efforts in this area help to inspire and engage young people and support educators in the delivery of science education. They are also designed to create a pipeline of skills to support the long term sustainability of our industry.

Our programme supports primary and secondary school initiatives and partnerships with universities and other institutions. They are overseen by our Director of Corporate Communications, with support from local communications managers.

#### The Richie Programme

URENCO's Richie Programme aims to inspire school children up to the age of 16 to nurture an interest in STEM subjects.

Richie is an animated character formed from uranium atoms and is the figurehead of our programme.

Through our Richie science workshops in Europe and the USA, primary school children experience and learn about science in a fun and interactive way. The workshops, which are attended by URENCO employee volunteers, bring the science that supports our operations alive through a series of practical experiments. Our aim is to nurture the young engineers and scientists of the future. Since 2007, more than

**100,000** school children

have participated in our science education outreach programmes globally.

We also hosted our third consecutive annual Richie Lecture at the Science Museum in London, within the showspace of its new interactive gallery 'Wonderlab: The Statoil Gallery' (see below for more details). Over 120 school students attended the Lecture, which was hosted by science enthusiast and TV presenter Dallas Campbell. The Lecture, which is designed to engage and inspire young people about STEM subjects, showed how science and engineering has helped to shape the world and was a highlight of our annual education programme.

During the year, we continued our involvement in the CREST Star framework (a UK-wide award scheme which enables children to solve STEM problems through practical investigation), partnering with the British Science Association to launch a CREST Discovery Award resource for teachers and students. Entitled 'Enrich my Classroom', the resource aims to teach students about a variety of STEM topics, including coding, nanotechnology and electricity, through group work and interactive activities.

The resource is available via the website:

[www.britishscienceassociation.org/enrichmyclassroom](http://www.britishscienceassociation.org/enrichmyclassroom)

In the Netherlands, we participated in an initiative to inspire young people into careers using process technology, with a view to exploring career options as process operators and technicians.

In the USA, we continued to maintain our membership with the National Museum of Nuclear Science & History and updated our display, which describes both our enrichment operations and the entire nuclear fuel cycle. Over 60,000 members of the public visit the museum annually.

#### Sustainability KPIs for community engagement

##### Science education through the Richie Programme

- Target: 30,000 students reached
- Actual:  33,810 students reached

#### Science Museum partnership

Our flagship science education project of 2016 was our sponsorship of the new interactive gallery at the Science Museum in London. 'Wonderlab: The Statoil Gallery' launched in October 2016, featuring specially commissioned artworks, exciting demonstrations and immersive experiences that show visitors how science and mathematics have shaped our lives.

Our sponsorship focuses on two key areas: (i) the Forces zone, which explores the physics of forces and motion through ten interactive exhibits; and (ii) the showspace, which is inspired by the Royal Institution's world-renowned Faraday Theatre, providing live demonstrations of science-related experiments.

Far more than just a name on a gallery wall, our involvement in Wonderlab and our partnership with the Museum fit perfectly with our commitment to science education and public understanding of nuclear energy. The gallery aligns with our aim of inspiring the next generation of science leaders, and enables us to engage with new audiences and partnership initiatives.

<https://beta.sciencemuseum.org.uk/wonderlab/>

# Focus Areas

## Materiality and Risk

### Political landscape (priority aspect)

Our industry is greatly influenced by the political landscape in the countries in which we operate. We regularly review potential changes in policy and consult with stakeholders on a national level to ensure our policy decisions are informed and reflect the interests of those who matter most to our business.

As the industry continues to be political in its nature, in 2016 we enhanced our Government Affairs department and appointed a new Executive Director of Strategic and Government Affairs to oversee this crucial internal function.

Following the UK's vote to leave the EU in 2016, we created a dedicated EU Referendum Working Group to help shape our company's approach to the potential changes in policy, regulation and social aspects that could take place in the coming years.

### Key activities and initiatives that address this material aspect:

- Creation of a dedicated Working Group to help mitigate risks and uncertainties following the UK's vote to leave the EU
- New Executive Director of Strategic and Government Affairs.

### Noise (priority aspect)

Our reputation as a good corporate citizen depends upon our ability to operate our facilities with minimum adverse operational impact on our local communities. In the event of an issue or concern being raised by a local resident, one of our shift managers will attempt to resolve the issue swiftly and effectively. They will also report the incident to senior management to ensure appropriate action is taken. All events are then recorded in a stakeholder log for which our Director of Corporate Communications is ultimately accountable.

In 2016, we continued to engage with the local community near our Capenhurst facility in the UK to further minimise existing plant noise and address the issue of noise arising from night time construction work. Through our community liaison activities, we kept the local community informed of upcoming works and continued to modify our working patterns and equipment to limit noise emissions. During the year, we erected shields and fences to further block any noise or light that might disturb the local community.

### Key activities and initiatives that address this material aspect:

- Regular engagement with the local community, with all complaints or issues logged and reported to senior management
- Regular updates on upcoming works through extensive community liaison
- Modification of working patterns and equipment, and implementation of noise mitigation devices.

# Focus Areas

## Materiality and Risk



### Focus Area 6: Asset integrity



**In order to protect our investments, we must maintain our critical plant systems to ensure they continue to function safely and effectively. Across the organisation, continued commitment to asset integrity ensures that the appropriate processes, systems and tools are in place to safeguard our investments.**

Asset integrity is a fundamental consideration in the design phase of all our enrichment facilities, and across the organisation, URENCO has worked to improve collaboration and information sharing in asset management.

In 2016, the focus of our asset integrity champions was on improving data collection, visualisation and analysis. Operational knowledge and experience has been shared across the organisation, and improvements have been made to how we manage our assets as a result.

The Sponsor of this focus area is our Chief Operating Officer.

#### Asset integrity (priority aspect)

We continue to reinvest in our worldwide fleet of facilities, and in 2016, our focus remained on renewing the infrastructure at our Capenhurst facility in the UK. Our aim is to finalise all plant control and power management initiatives by the end of 2017.

Also in the UK, we maintained our focus on improving plant operators' knowledge so they can solve technical issues more seamlessly. We are now one-third of our way through our asset restoration programme at Capenhurst. By the end of 2017, we will have finalised all planned control and power contingency initiatives to help deal with any potential power disturbances in the future.

Elsewhere, we implemented power loss tests, which are designed to simulate a 'black out'. The objective is to stress test the protecting systems in the plants, without the need for operator intervention.

A URENCO standard and scoring system for asset management has been developed, which enables each site to execute 5S<sup>12</sup> housekeeping reviews for benchmarking purposes. We need to continue our rigorous asset integrity programme to ensure the highest and most efficient industry standards are achieved and maintained.

<sup>12</sup> 5S enables an organisation to evaluate its workplace organisation capability and visual management standards. <https://uk.kaizen.com/knowledge-center/what-is-5s.html>



### Supporting our sustainability endeavours

In support of the Sustainability Committee's activities and ambitions, in 2015 we established a Sustainability Programme Committee, which now oversees the delivery of all sustainability initiatives at URENCO. The team meets regularly to ensure sustainability is being well managed across the Group.

In 2015, we also established our Sustainability Champions, who, under the guidance of the Sustainability Sponsors of each focus area, helped us set sustainability key performance indicators (KPIs) for the first time. These KPIs will improve the collection, interrogation and sharing of sustainability data, enabling us to deliver improvements each year and set additional targets for the future.

### Accountability and rigour

We have made significant progress in recent years in the way we manage sustainability at URENCO. Each quarter, sustainability data is collected and interrogated and shared with our executive management team. The Managing Directors of each enrichment facility are accountable for the sustainability performance of their sites, with additional accountability assigned to a focus area Sponsor. Each Sponsor is responsible for defining the policy which guides our business activities within their specific sustainability focus area, as part of our wider sustainability strategy.

### The Sustainability Committee

To augment and support our management of sustainability, in 2013 the URENCO Board established a specific Board Committee, the Sustainability Committee, consisting of members from each of the three shareholders. The Committee's meetings, which take place three times a year at one of our enrichment facilities, are attended by members of the Board and senior management from across the Group. This approach ensures that sustainability is incorporated into all operational and strategic decision making and embedded across the organisation, with Board level involvement demonstrating the depth of our commitment.

### Working with our regulators

In each of the countries where we operate, we work closely with our regulators and report to them on an ongoing basis. In each jurisdiction, government authorities regulate and approve the design and operating principles of our facilities to ensure safety and security. They also monitor and inspect them to check compliance with all relevant legislation.

### Informing and involving employees

In order to provide regular updates on developments within the Group, URENCO's Chief Executive Officer (CEO), Chief Financial Officer (CFO) and the Managing Directors of all enrichment facilities communicate regularly with our employees. In addition, the CEO is invited to an annual forum of employee-nominated representatives from across the Group who are brought together to discuss business matters. Any issues raised are accounted for in our stakeholder dialogue.



**In this report, we have followed best practice in sustainability disclosure to give our stakeholders a detailed and transparent view of our sustainability performance. We have also followed a set of strict reporting parameters and guidelines.**

## Reporting period and cycle

This report covers URENCO Group's corporate sustainability activities during 2016. All data covers the calendar year 2016, unless stated otherwise. Where we have used data outside 2016, it is to provide broader context for the activities or achievements being described.

Our most recent Sustainability Report was published in March 2016, relating to the 2015 calendar year.

## Defining report content

In line with GRI G4 guidelines, in 2015 we undertook a materiality assessment of key issues that are important to our stakeholders and may impact business performance. This includes an assessment of the focus areas' boundaries in terms of whether they affect URENCO itself (internal) or organisations/stakeholders separate from our company such as local communities or third parties (external).

Our materiality analysis also involved establishing thresholds to help us ascertain which material issues are a priority (priority aspects), and which need to be monitored (monitor aspects).

In 2016, we improved our reporting process further by validating our materiality aspects, with a cross section of stakeholders across the business, to ensure the information and data we report on continues to be relevant.

This report provides an overview of our six core sustainability focus areas: health and safety, safeguards and security; environmental impact; supplier of choice; employer of choice; community engagement; and asset integrity.

Data is provided by URENCO's facilities, compiled by Group Compliance and externally assured. A sustainability Working Group, consisting of a cross-section of managers from key functions, is involved in the writing of the report. The report content has Board level approval by members of the Sustainability Committee.

## Reporting scope

The data and information contained in this report relate to URENCO Ltd and its wholly owned subsidiaries. Data and information relating to Enrichment Technology Company (ETC), our joint-venture with Areva, is not included in this report unless specifically referenced.

As there is no sector disclosure for nuclear currently within the GRI G4 guidelines, we have explained our management approach for each material issue, as well as any KPIs we have in this area. The GRI G4 indicators for our material issues are published if relevant to our business, or if we currently collate the appropriate data.

With regard to our supply chain, we understand that we are part of the wider nuclear industry, but based on where we are currently on our sustainability journey, we will only include GRI data in our report that is internally relevant to our organisation.

## GRI reporting guidelines and principles

This report has been prepared according to GRI sustainability reporting requirements, and our GRI checklist is printed at the end of this report.

Each year since 2007, we have published a sustainability report in accordance with GRI requirements. The 2016 Sustainability Report has been prepared in accordance with the GRI G4 Core option. This reflects our engagement with clear and accountable reporting practices.

## Measuring data, setting KPIs and carrying out internal audits

This report includes technical data which we have collated across the URENCO Group using relevant regulatory guidelines.

In our operations, we adhere to industry regulatory requirements in each country and uphold strict international safeguards, security and non-proliferation agreements. The URENCO operating environment is audited, ensuring a high degree of data accuracy. We also carry out internal audits on technical data and adhere to GRI principles within this report.

Data for sustainability KPIs is gathered throughout the year on a quarterly basis and submitted to the Sustainability Committee.

# Independent Assurance of URENCO Limited

## Sustainability data 2016

### ISAE 3000 Statement

08 March 2017



#### Independent Assurance of URENCO Limited's sustainability data 2016: ISAE 3000 statement

##### The nature of the assurance

This is a report by Corporate Citizenship for URENCO Limited (URENCO).

Corporate Citizenship has undertaken **limited** assurance of URENCO's 2016 sustainability data, as described below:

- LA6 - Number of lost time incidents
- EN23 - Waste (hazardous and non-hazardous)
- EN8 and EN22 - Water (withdrawn and discharged)
- EN3 - Direct and indirect energy usage
- EN 15 EN 16 - CO<sub>2</sub>e emissions from direct and indirect energy consumption

The assurance covers the period from 1st January 2016 – 31 December 2016.

URENCO is entirely and solely responsible for the production and publication of the data assured, Corporate Citizenship for its assurance.

The data relates to URENCO and its wholly owned subsidiaries. Data related to joint ventures and is not included in the scope of the assurance.

Our work has involved reviewing selected environmental claims and data included in the report against the GRI principles for Defining Report Quality. The carbon emissions data has been prepared using the UK Department for Environment, Food and Rural Affairs (DEFRA) Environmental Reporting Guidelines: Including mandatory greenhouse gas reporting guidance (June 2013) and the appropriate GHG conversion factors for company reporting, as published by DEFRA.

GHG quantification is subject to inherent uncertainty due to factors such as incomplete scientific knowledge about the global warming potential of different GHGs and uncertainty around the models and parameters used in estimating GHG emissions.

This engagement was performed in accordance with the International Standard on Assurance Engagement (ISAE) 3000 (Assurance Engagements other than Audits or Reviews of Historical Financial Information) and the relevant subject-matter specific ISAE for GHG data (ISAE 3410, Assurance Engagements on Greenhouse Gas Statements).

Corporate Citizenship has complied with the requirements for independence, professional ethics and quality control as stipulated by ISAE 3000.

##### Assurance work performed

The assurance work was commissioned in October 2016 and was completed on 08 March 2017. Detailed records were kept of meetings, assurance visits and correspondence relating to the assurance. The assurance process was undertaken by a multidisciplinary team of three, including two Consultants, and a Director acting in a supervisory capacity.

The assurance engagement was undertaken to a limited level, and involved the following activities:

1. Detailed interviews with employees responsible for delivery of URENCO's sustainability performance. This was in order to understand the overall process of management and to discuss key trends and the process for collecting, validating and consolidating the data;
2. Checks on a sample basis of consolidated data to underlying records to check for consistency and accuracy of reporting;
3. Reviews of the systems used to record and analyse environmental performance data in order to assess robustness;
4. Review of GHG calculation method and emission factors used;
5. Review of a sample of assertions from the 2016 Sustainability Report against source evidence;
6. Examination of the 2016 Sustainability Report at set stages in its development to assess the environmental reporting content against the Global Reporting Initiative's Principles for Determining Report Quality, namely: balance, comparability, accuracy, timeliness, clarity, and reliability of reporting.

##### Our experience and independence

Corporate Citizenship is a specialist management consultancy, advising corporations that seek to improve their economic, social and environmental performance around the world and is a leading assurer of corporate responsibility and sustainability reports. This is the first year that Corporate Citizenship has provided independent assurance services in relation to URENCO's sustainability reporting. We have provided no other services to URENCO during the period under review.

# Independent Assurance of URENCO Limited

## Sustainability data 2016

### Conclusion

Based on the scope of work and assurance procedures performed, nothing came to our attention that causes us to believe that the key performance data described above is not prepared, in all material respects, in accordance with the GRI Principles for Defining Report and in accordance with the DEFRA Environmental Reporting Guidelines.

We believe the report is in line the GRI G4 Guidelines – Core option Corporate Citizenship Limited, London, 8 March 2017

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# GRI performance

## General standard disclosures

	Description	Page	Comments
<b>STRATEGY AND ANALYSIS</b>			
<b>G4-1</b>	Statement from the most senior decision-maker of the organisation	Sustainability Report 2016, Chief Executive's Review, p. 4-5	
<b>G4-2</b>	Description of key impacts, risks and opportunities.	Annual Report 2016 p. 18-21 Sustainability Report 2016 p. 12-29	
<b>ORGANISATIONAL PROFILE</b>			
<b>G4-3</b>	Name of the organisation.	Annual Report and Sustainability Report 2016, front cover	
<b>G4-4</b>	Primary brands, products and/or services.	Sustainability Report 2016, The nuclear fuel supply chain, p. 06	
<b>G4-5</b>	The location of the organisation's headquarters	Annual Report 2016, Our global role, p. 10-11	
<b>G4-6</b>	Number of countries where the organisation operates, and names of countries where either the organisation has significant operations or that are specifically relevant to the sustainability topics covered in the report.	Annual Report 2016, Our global role, p. 10-11	
<b>G4-7</b>	Nature of ownership and legal form.	Annual Report 2016, Our global role, p. 10-11	
<b>G4-8</b>	Markets served: <ul style="list-style-type: none"><li>• Geographic breakdown</li><li>• Sectors served</li><li>• Types of customers and beneficiaries.</li></ul>	Annual Report 2016, Our global role, p. 10-11 Annual Report 2016, Our markets, p. 14-15	
<b>G4-9</b>	Scale of the reporting organisation: <ul style="list-style-type: none"><li>• Total number of employees</li><li>• Total number of operations</li><li>• Net sales/net revenues</li><li>• Total capitalisation broken down in terms of debt and equity</li><li>• Quantity of products or services provided.</li></ul>	Sustainability Report 2016, GRI performance Performance data 2016, p. 45	
<b>G4-10</b>	<ul style="list-style-type: none"><li>• Total number of employees by employment contract and gender</li><li>• Total number of permanent employees by employment type and gender</li><li>• Total workforce by employees and supervised workers and by gender</li><li>• Total workforce by region and gender</li><li>• Whether a substantial portion of the organisation's work is performed by workers who are legally recognised as self-employed, or by individuals other than employees or supervised workers, including employees and supervised employees of contractors</li><li>• Significant variations in employee numbers</li><li>• Seasonal variations in employment in the tourism or agricultural industries</li></ul>	Sustainability Report 2016, GRI performance Performance data 2016, p. 45	URENCO does not employ large quantities of self-employed staff No significant variations in employee numbers in 2016
<b>G4-11</b>	The percentage of total employees covered by collective bargaining agreements.	Sustainability Report 2016, GRI performance Performance data 2016, p. 45	

# GRI performance

	Description	Page	Comments
<b>G4-12</b>	Describe the organisation's supply chain.	Sustainability Report 2016, Our role in the nuclear supply chain, p. 06	
<b>G4-13</b>	Report any significant changes during the reporting period regarding the organisation's size, structure or ownership of its supply chain, including: <ul style="list-style-type: none"><li>• Changes in the location of, or changes in, operations, including facility openings, closings and expansions</li><li>• Changes in the share capital structure and other capital formation, maintenance and alteration operations</li><li>• Changes in the location of suppliers, the structure of the supply chain or in relationships with suppliers, including selection and termination.</li></ul>	n/a	No changes to report
<b>G4-14</b>	Report whether and how the precautionary approach or principle is addressed by the organisation.	n/a	The nuclear industry, which is inherently low carbon, adheres to the precautionary approach in preventing environmental degradation. As an organisation we focus on reducing our environmental impact and have a dedicated Energy Savings Group which identify and mitigate any potential environmental impacts of our operations.
<b>G4-15</b>	List externally developed economic, environmental and social charters, principles or other initiatives to which the organisation subscribes or which it endorses.	Sustainability Report 2016, Our role in the nuclear supply chain, p. 06	Our Annual Report 2016 outlines the economic charters to which we subscribe including Internal Accounting Standards (IAS) and International Financial Reporting Standards (IFRS). All of our facilities are accredited to the environmental standard 14001, and our facility in Germany is also EMAS validated. See also p.16 of our Sustainability Report 2016, where URENCO's adherence to regulatory requirements is described.
<b>G4-16</b>	List memberships of associations (such as industry associations) and national or international advocacy organisations in which the organisation: <ul style="list-style-type: none"><li>• Holds a position on the governance body</li><li>• Participates in projects or committees</li><li>• Provides substantive funding beyond routine membership dues</li><li>• Views membership as strategic.</li></ul>	n/a	See figure 1 on p.39
<b>IDENTIFIED MATERIAL ASPECTS AND BOUNDARIES</b>			
<b>G4-17</b>	List all entities included in the organisation's consolidated financial statements or equivalent documents.  Report whether any entity included in the organisational consolidated financial statements or equivalent documents is not covered by the report.	Sustainability Report 2016, About this report, p. 31  Annual Report 2016, Notes to the Consolidated Financial Statements, p. 62	

# GRI performance

	Description	Page	Comments
<b>IDENTIFIED MATERIAL ASPECTS AND BOUNDARIES (continued)</b>			
<b>G4-18</b>	<p>Explain the process for defining the report content and the Aspect Boundaries.</p> <p>Explain how the organisation has implemented the Reporting Principles for Defining Report Content.</p>	Sustainability Report 2016, Focus Areas, Materiality and Risk, p. 12-13	<p><b>Summary of URENCO's Stakeholder Analysis and Materiality Assessment</b></p> <p>A materiality study was completed in 2015 which follows the process of Identification, Prioritisation, Validation and Review. This is the process we used in defining report content.</p> <p><b>Stage 1: Identification</b></p> <p>URENCO Group's policy is to collate dialogue from all stakeholders at each of our facilities. stakeholder Groups are identified by the impact they have on our business. (i.e. decision makers, influencers and opinion makers). A list of stakeholders whom we engage is available in 'Engaging with our stakeholders' p. 08-10.</p> <p><b>Stage 2: Prioritisation</b></p> <p>This stage is based on the Principles of Materiality and Stakeholder Inclusiveness. Using the views/issues expressed by stakeholders during the reporting period (as recorded in our stakeholder engagement log), quantitative scores were given to each material issue raised. These scores were based on an internal review process, using G4 prioritisation guidelines.</p> <p>In order to determine what to report on, we have defined thresholds to divide aspects between priority and monitoring.</p> <p><b>Stage 3: Validation</b></p> <p>In the prioritisation stage, a list of material aspects was established and were reviewed by a Sustainability Programme team. In 2016, we improved our reporting process further by validating our materiality aspects, with a cross section of stakeholders across the business, to ensure the information and data we report on continues to be relevant.</p> <p>To ensure each aspect is managed correctly, core areas of focus have been established internally which cover these material aspects and guide our sustainability agenda going forward. For full details, read the Materiality review in our report p. 12-29.</p> <p><b>Stage 4: Review</b></p> <p>To be conducted in 2017 once the report has been published.</p>
<b>G4-19</b>	List all the material Aspects identified in the process for defining report content.	Sustainability Report 2016, Focus Areas, Materiality and Risk, p. 13	

# GRI performance

	<b>Description</b>	<b>Page</b>	<b>Comments</b>
<b>G4-20</b>	For each material Aspect, report the Aspect Boundary within the organisation, as follows: <ul style="list-style-type: none"><li>• Report whether the Aspect is material within the organisation</li><li>• If the Aspect is not material for all entities within the organisation (as described in G4-17), select one of the following two approaches and report either the list of entities or groups of entities included in G4-17 for which the Aspect is not material or the list of entities or groups of entities included in G4-17 for which the Aspect is material</li><li>• Report any specific limitation regarding the Aspect Boundary within the organisation.</li></ul>	Sustainability Report 2016, Focus Areas, Materiality and Risk, p. 13	
<b>G4-21</b>	For each material Aspect, report the Aspect Boundary outside the organisation, as follows: <ul style="list-style-type: none"><li>• Report whether the Aspect is material outside of the organisation</li><li>• If the Aspect is material outside of the organisation, identify the entities, groups of entities or elements for which the Aspect is material. In addition, describe the geographical location where the Aspect is material for the entities identified.</li></ul>	Sustainability Report 2016, Focus Areas, Materiality and Risk, p. 13	The geographical location of our customers is shown in the Annual Report's map on p10-11. The impact for our Contractors is at our facilities in the Netherlands, the UK, the USA, and Germany.
<b>G4-22</b>	Report the effect of any restatements of information provided in previous reports, and the reasons for such restatements.	Sustainability Report 2016, About this report, p. 31	
<b>G4-23</b>	Report significant changes from previous reporting periods in the Scope and Aspect Boundaries.	Sustainability Report 2016, About this report, p. 31	
<b>STAKEHOLDER ENGAGEMENT</b>			
<b>G4-24</b>	Provide a list of stakeholder groups engaged by the organisation.	Sustainability Report 2016, Engaging with our stakeholders, p. 08-10	
<b>G4-25</b>	Report the basis for identification and selection of stakeholders with whom to engage.	Sustainability Report 2016, Engaging with our stakeholders, p. 08-10	URENCO's Group policy is to collate stakeholder dialogue at each of our facilities. Stakeholders are classified into a number of key groups (Decision Makers, Influencers and Opinion Makers). We prioritise the opinions of the stakeholders who have the greater impact on our business (Decision Makers/Influencers); however, we are careful not to exclude the stakeholders whose opinions could influence our business. The majority of stakeholder dialogue therefore is collated to ensure any issues identified by our stakeholders that need closer monitoring are raised with our senior management.
<b>G4-26</b>	Report the organisation's approach to stakeholder engagement, including frequency of engagement by type and by stakeholder group, and give an indication of whether any of the engagement was undertaken specifically as part of the report preparation process.	Sustainability Report 2016, Engaging with our stakeholders, p. 08-10	

# GRI performance

	Description	Page	Comments
<b>G4-27</b>	Report key topics and concerns that have been raised through stakeholder engagement, and how the organisation has responded to those key topics and concerns, including through its reporting. Report the stakeholder groups that raised each of the key topics and concerns.	Sustainability Report 2016, Engaging with our stakeholders, p. 08-10	
<b>REPORT PROFILE</b>			
<b>G4-28</b>	Reporting period (such as fiscal or calendar year).	Sustainability Report 2016, About this report, p. 31	
<b>G4-29</b>	Date of most recent report.	Sustainability Report 2016, About this report, p. 31	
<b>G4-30</b>	Reporting cycle (such as annual, biennial).	Sustainability Report 2016, About this report, p. 31	
<b>G4-31</b>	Provide the contact point for questions regarding the report or its contents.	Sustainability Report 2016, Further information, p. 50	
<b>G4-32</b>	<ul style="list-style-type: none"> <li>Report the 'in accordance' option the organisation has chosen.</li> <li>Report the GRI Context Index for the chosen option.</li> <li>Report the reference to the External Assurance</li> <li>Report whether the report has been externally assured. GRI recommends the use of external assurance, but it is not a requirement to be 'in accordance' with the Guidelines.</li> </ul>	Sustainability Report 2016, About this report, p. 31	
<b>G4-33</b>	<ul style="list-style-type: none"> <li>Report the organisation's policy and current practice with regard to seeking external assurance for the report.</li> <li>Report scope and basis for external reporting.</li> <li>Report the relationship between the organisation and the assurance providers.</li> <li>Report whether the highest governing body or senior executives are involved in seeking assurance for the organisation's sustainability report.</li> </ul>	In assurance statement on the website <a href="http://www.urenco.com/sustainability">www.urenco.com/sustainability</a>	
<b>GOVERNANCE</b>			
<b>G4-34</b>	Report the governance structure of the organisation, including committees of the highest governance body. Identify any committees responsible for decision-making on economic, environmental and social impacts.	Sustainability Report 2016, Managing sustainability p. 30 Annual Report 2016, Corporate governance p. 32-33	
<b>ETHICS AND INTEGRITY</b>			
<b>G4-56</b>	Describe the organisation's values, principles, standards and norms of behaviour such as codes of conduct and codes of ethics.	Annual Report 2016, Our values and strategy, p 08-09	Values are identified on URENCO's website ( <a href="http://www.urenco.com/About Us/Vision, Mission &amp; Values">www.urenco.com/About Us/Vision, Mission &amp; Values</a> ). URENCO's code of conduct is issued in a briefing pack to each employee upon joining the company. All employees are expected to adhere to the standards and values while working for URENCO.

## GRI performance

Membership	Hold position on the governance body	Participate in projects or committees	Provide substantive funding beyond routine membership dues	View membership as strategic
European Nuclear Society	✓			✓
European Safeguards Research & Development Association	✓	✓		✓
FORATOM				✓
Nuclear Industry Association	✓			✓
NucNet	✓			✓
World Nuclear Association	✓			✓
World Nuclear Fuel Market	✓			✓
World Nuclear Transport Institute	✓	✓		✓
World Institute for Nuclear Security	✓			✓
German Atomic Forum	✓			✓
German Nuclear Society	✓	✓		✓
WKK German Nuclear Front End Institute	✓	✓	✓	✓

**Figure 1**

## Specific standard disclosures

Material Aspects	DMA	Indicator	2016	Omissions	External Assurance
<b>Priority Aspects</b>					
Asset integrity	The DMA can be found on p. 29	No specific indicator	No data reported		
Economic performance	The DMA for economic performance can be found on p. 22	<b>EC1</b> a. Report the direct economic value generated and distributed: <ul style="list-style-type: none"> <li>• Economic value generated/ distributed</li> <li>• Revenue</li> <li>• Operating costs</li> <li>• Employee wages and benefits</li> <li>• Payments to providers of capital</li> <li>• Payments to government (by country)</li> <li>• Community investments</li> <li>• Economic value retained</li> </ul> b. Report the above by country, regional or market levels	See Annual Report 2016, p. 57-124		
	Market presence	<b>EC5</b> a. Report the ratio of the entry level wage by gender at significant locations of operation to the minimum wage	See performance data on p. 48	We do not include entry level wage by gender.	
		b. Report whether a local minimum wage is absent or variable at significant locations of operation	All the countries in which we operate have a standard minimum wage.		
		c. Report the definition used for significant locations of operation	We define significant location of operations as close to our enrichment facilities and offices in the Netherlands, the UK, USA and Germany.		

# GRI performance

Material Aspects	DMA	Indicator	2016	Omissions	External assurance
Emissions	The DMA can be found on p. 17.	<b>EN15/EN16</b> <ul style="list-style-type: none"> <li>a. Report gross direct emissions in metric tons of CO<sub>2</sub> equivalent</li> <li>b. Report gases included in the calculation</li> <li>c. Report biogenic CO<sub>2</sub> emissions in metric tons and CO<sub>2</sub> equivalent separately from the gross direct GHG emissions</li> <li>d. Report the chosen base year:</li> <li>e. Report the standards, methodologies and assumptions used</li> <li>f. Report the source of the emission factors used</li> <li>g. Report the chosen consolidation approach for emissions</li> </ul>	<p>See performance data on p. 46</p> <p>As reported in CO<sub>2</sub>e, this includes a CO<sub>2</sub> weighting to represent other gases emitted in the process.</p> <p>Not collected</p> <p>2016 as it has been externally audited and is our most recent benchmark year.</p> <p>The latest DEFRA figures have been used to calculate CO<sub>2</sub>e emissions. A standard approach has been applied across all URENCO sites to achieve like for like results and quality auditable data.</p> <p>DEFRA 2016 Conversion Rate</p> <p>Operational control</p>	<ul style="list-style-type: none"> <li>c. We do not collect biogenic CO<sub>2</sub> data.</li> <li>d. We collate data for energy consumption in kW hours, not energy sold.</li> <li>e. We do not report energy consumption in joules or multiples.</li> </ul>	Fully assured
Noise	The DMA for noise can be found on p. 28.	No specific indicator.		DMA only. No GRI indicators are relevant for this material aspect	
Political landscape	The DMA for political landscape can be found on p. 28.	No specific indicator.		GRI indicator SO6 is not relevant for this material aspect as the Group made no contributions to local political parties.	
Public education	The DMA for public education can be found on p. 26.	<b>SO1</b> <ul style="list-style-type: none"> <li>a. Report the percentage of operations with implemented local community engagement, impact assessments and development programmes.</li> </ul>	<p>All of our sites and business units have community engagement initiatives in place. Our extensive stakeholder engagement and mapping exercises enable us to determine where our impact is and how best to respond to our stakeholder needs; for example if an issue arises, it is escalated through the appropriate management channels so that it is dealt with accordingly. URENCO representatives regularly attend local stakeholder meetings to keep them informed of our activities. Our Richie schools programme was born from our local stakeholders' request to educate more young people about the importance of science and engineering, and is now an integral part of our communities.</p>		

# GRI performance

Material Aspects	DMA	Indicator	2016	Omissions	External Assurance
Safety	The DMA for safety can be found on p. 14	<p><b>LA6</b> Report types of injury, injury rate, occupational diseases rate, lost day rate, absentee rate and work-related fatalities for the workforce by region and gender:</p> <p>a. Report the above for contractors:</p> <p>b. Report the system of rules applied:</p>	<p>See performance data on page 47. We had no fatalities or occupational diseases in 2015.</p> <p>Contractor LTIs are not reported separately; they are included in the LTI numbers for the group.</p> <p>URENCO has in place a significant incident reporting procedure where any incidents are reported to the Group within a certain timeframe. Once resolved, improvements are put in place and rolled out Group-wide.</p>	Contractors are deemed within our organisational boundary and therefore fall within our remit.	Partially assured
Science education	The DMA for Science education can be found on p. 27	No specific indicator. Use number of children reached through Richie educational programme	See p. 27 for number of students reached.		
Transport	The DMA for transport can be found on p. 22	<p><b>EN30</b> a. Report the significant environmental impacts of transporting products and other goods and materials for the organisation's operations:</p> <p>b. Report how this is mitigated:</p> <p>c. Report criteria and methodology used:</p>	<p>See performance data on p. 46.</p> <p>Combined pick-ups and deliveries to limit the number of vehicles on roads. We plan deliveries well in advance to maximise efficiencies.</p> <p>As a key function of our business is the transportation of uranic material, this was selected as significant for reporting purposes.</p>	We do not currently collate transport data for members of the workforce.	Fully assured
Monitoring Aspects					
Diversity	The DMA can be found on p. 25	<p><b>G4-LA12</b> a. Report the percentage of individuals within the organisation's governance bodies in each of the following: gender, age group, minority groups, other indicators of diversity</p> <p>b. Report the percentage of employees per employee category in each of the following diversity categories: Gender, Age Group, Minority Groups, Other indicators of diversity</p>	<p>See performance data on p. 48</p> <p>See performance data on p. 48</p>	We do not currently include percentage of individuals by minority groups or other indicators of diversity.	

# GRI performance

Material Aspects	DMA	Indicator	2016	Omissions	External Assurance
Energy saving and natural resources	Energy usage	<b>EN3</b> b.c. Report total fuel consumption from renewable and non-renewable sources. Report the total electricity, heating, cooling and steam consumption in watt-hours:	See performance data on p. 45		Fully assured
		f.g. Report the standards, methodologies and assumptions used. Report the source of the conversion factor used:	Energy usage is calculated by fuel source, type and location. The latest DEFRA figures are then applied to calculate kW hours.		
	Water	<b>EN8</b> a. Report the total volume of water withdrawn from source:	See performance data on p. 45		Fully assured
		b. Report the standards, methodologies and assumptions used	There is a standard approach to collecting water data across all sites in terms of standard units and calculations used. We collate water usage data from domestic and river sources.		
		<b>EN22</b> a. Report the total volume of planned and unplanned water discharge by destination, treatment method and whether it is reused by another organisation	See performance data on p. 46. Before water is discharged from our sites, it is treated and monitored by us and audited by the environmental agencies. Our water is not reused by other organisations.		
		b. Report the standards, methodologies and assumptions used	There is a standard approach to collecting water data across all sites in terms of standard units and calculations used.		
	Employee engagement*	<b>LA1</b> a. Report the total number and rate of new employee hires during the reporting period by age group, gender and region:	Omitted	a. In 2016, we did not have a high level of staff turnover so have chosen not to disclose information on new employees.	
		b. Report the total number and rate of employee turnover during the reporting period by age group, gender and region:	See performance data on p. 47.	b. The information is currently unavailable by gender as this is deemed sensitive by our business.	
Innovation, technology and R&D	The DMA can be found on p. 23	No specific indicator.		DMA only. No GRI indicators are relevant for this material aspect.	
Investment in local areas	The DMA for investment in local areas can be found on p. 26 of the Sustainability Report.	<b>EC7</b> a. Report the extent of development of significant infrastructure investments and services supported	The narrative on p. 26-27 of the Sustainability Report 2016 describes our impact, for example through our Richie schools programme and volunteering programme.		
		b. Report current expected impacts	No expected impacts to report.		
		c. Report whether these investments are commercial, in-kind or pro bono engagements.	The investments are commercial.		

\* Employee wellbeing has been renamed employee engagement in 2016

# GRI performance

Material Aspects	DMA	Indicator	2016	Omissions	External assurance
Opportunities in new markets	The DMA can be found on p. 23.	No specific indicator.		DMA only. No GRI indicators are relevant for this material aspect	
Regulatory requirements	The DMA for regulatory requirements can be found on p. 16 of the Sustainability Report.	<b>EN29/ PR9/ SO8</b> a. Report significant fines and non-monetary sanctions for non-compliance with environmental laws and regulations.	In 2016, URENCO did not receive any significant fines or non-monetary sanctions.		
Waste	Waste (as per the GRI definition) is considered to be material for our business due to the nature of our operations on site. We are currently constructing new facilities and continuing with regular maintenance works, which inevitably leads to the production of (hazardous and non-hazardous) waste, a high proportion of which is recycled or reused. The compliance function monitors waste levels and reports to the Sustainability Committee on a quarterly basis, to ensure we minimise our environmental impact and are fully compliant with environmental legislation.	<b>EN23</b> a. Report the total weight of hazardous and non-hazardous waste, by disposal method:  b. Report how the waste disposal method has been determined:	See performance data on p 46.  Waste is disposed of by our organisation and by a third party organisation in some circumstances. For example, our offices tend to dispose of waste through the local council. Group waste disposal data is recorded for GRI reporting purposes in alignment with EU waste regulations.		Fully assured
Workforce skills gap	The DMA can be found on p. 25.	<b>LA11</b> Report the percentage of employees who received a regular performance and career development review during the reporting period.	All employees across the Group received a performance review in 2016.		

## Performance data 2016

GRI G4 indicator	Description		2014	2015	2016	Unit	Change 2015-2016
<b>G4-9:</b> Scale of the organisation	Total employees		1,457	1,444	1,587	Employees	10%
	Total number of operations		4	4	4	Operating Sites	0%
	Net revenue		See Annual Report 2016 inside front cover				
	Quantity of products or services produced		See Annual Report inside front cover (global capacity)				
<b>G4-10:</b> Organisational profile	Total employees by employment contract	Permanent	1,430	1,412	1,551	Employees	10%
		Temporary	27	32	36	Employees	13%
		Total	1,457	1,444	1,587	Employees	10%
	Total permanent employees by employment type	Full-time	1,367	1,343	1,466	Employees	9%
		Part-time	63	69	85	Employees	23%
		Total	1,430	1,412	1,551	Employees	10%
	Total workforce by employees and supervisors by gender	Managers – male	214	219	250	Employees	14%
		Managers – female	34	31	46	Employees	48%
		Non-Managers – male	944	924	1,006	Employees	9%
		Non-Managers – female	265	270	285	Employees	6%
		Total	1,457	1,444	1,587	Employees	10%
	Total workforce by region and gender	Europe male	896	925	1,060	Employees	15%
		Europe female	205	225	267	Employees	19%
		America male	262	218	196	Employees	-10%
		America female	94	76	64	Employees	-16%
		Rest of world	0	0	0	Employees	-
		Total	1,457	1,444	1,587	Employees	10%
<b>G4-11:</b> Organisational profile	% of employees covered by collective bargaining		37%	40%	47%	%	7%
<b>G4-EN3:</b> Energy consumption within the organisation	Natural gas		16,617,450	17,453,589	20,285,324	kWh	16%
	Diesel		5,162,430	4,246,704	6,323,050	kWh	49%
	Petrol		507,686	463,441	443,721	kWh	-4%
	Fuel oil		838,331	452,335	1,039,566	kWh	130%
	Total direct energy consumption		23,125,898	22,616,068	28,091,662	kWh	24%
	Total indirect energy consumption		617,779,394	628,301,925	618,576,558	kWh	-2%
	Total energy consumption		640,905,292	650,917,993	646,668,220	kWh	-1%
	% of Total energy from renewables		19%	16%	16%	%	1%
	% of Total energy from non-renewables		81%	84%	84%	%	-1%
<b>G4-EN8:</b> Water usage	Total mains m <sup>3</sup> /year		340,704	323,895	401,948	m <sup>3</sup>	24%
	Total other m <sup>3</sup> /year		278,465	265,598	284,671	m <sup>3</sup>	7%
	Total m <sup>3</sup> /year		619,169	589,493	686,619	m <sup>3</sup>	16%

# GRI performance

GRI G4 indicator	Description	2014	2015	2016	Unit	Change 2015-2016
<b>G4-EN15:</b> Direct energy emissions	Direct emissions: from chemicals used for operational processes		8,963	4,610	Tonnes CO <sub>2</sub> e	-49%
	Direct emissions: from fuels	4,461	4,258	5,673	Tonnes CO <sub>2</sub> e	33%
	Total direct emissions	4,461	13,222	10,282	Tonnes CO <sub>2</sub> e	-22%
<b>G4-EN16:</b> Indirect energy emissions	Indirect emissions	288,900	285,810	282,293	Tonnes CO <sub>2</sub> e	-1%
	Total CO <sub>2</sub> e emissions	293,361	299,032	292,575	Tonnes CO <sub>2</sub> e	-2%
<b>G4-EN22:</b> Water discharge	Total m <sup>3</sup> : treatment method - to sewer	98,294	96,216	98,072	m <sup>3</sup>	2%
	Total m <sup>3</sup> : treatment method - to water courses	100,686	95,509	48,025	m <sup>3</sup>	-50%
	Total m <sup>3</sup>	198,980	191,725	146,097	m <sup>3</sup>	-24%
<b>G4-EN23:</b> Waste	Hazardous – composting	0	0	0	Tonnes	-
	Hazardous – reuse	0	0	1	Tonnes	-
	Hazardous – recycled	48	47	49	Tonnes	5%
	Hazardous – recovery	1	1	17	Tonnes	2214%
	Hazardous – incineration	6	7	5	Tonnes	-31%
	Hazardous – landfill	1	14	63	Tonnes	344%
	Total hazardous waste	56	69	135	Tonnes	96%
	Non-hazardous – composting	30	30	35	Tonnes	17%
	Non-hazardous – reuse	6,624	4,025	3,979	Tonnes	-1%
	Non-hazardous – recycled	1,443	1,659	3,827	Tonnes	131%
	Non-hazardous – recovery	0	2,818	1,123	Tonnes	-60%
	Non-hazardous – incineration	102	200	308	Tonnes	54%
	Non-hazardous – landfill	1,475	936	1,310	Tonnes	40%
	Total non-hazardous waste	9,674	9,668	10,583	Tonnes	9%
Nuclear material for disposal:	Volume of nuclear material for disposal		576.83	1,549.64	m <sup>3</sup>	-
<b>G4-EN30:</b> Transport	Total CO <sub>2</sub> e generated through the transportation of UF <sub>6</sub> material (feed, tails, product)	3,701	3,682	4,220	Tonnes CO <sub>2</sub> e	15%
Radiation dose: legal limit: Europe 20mSv / UUSA 50mSv	Average dose for employees	0.18	0.17	0.23	mSv	-
	Maximum dose for employees	3.12	3.36	2.92	mSv	-
	Average dose for external companies workers	0.08	0.13	0.20	mSv	-
	Maximum dose for external companies workers	1.67	6.61	3.81	mSv	-

# GRI performance

GRI G4 indicator	Description	2014	2015	2016	Unit	Change 2015-2016
<b>G4-LA1:</b> Employee standards/ wellbeing	Employee turnover by location	UUK	21.4	7.1	4.5	%
		UNL	4.9	4.5	2.5	%
		UD	1.5	2.4	2.0	%
		UCP	1.2	6.7	4.1	%
		UUSA	19.1	30.6	5.0	%
		CNS			3.4	%
		HO	14.8	9.9	10.5	%
	Employee turnover by age	Under 20	22.2	0.0	0.0	%
		20-29	24.6	11.7	6.7	%
		30-39	5.1	6.0	4.7	%
		40-49	3.8	3.9	4.1	%
		50-59	8.4	12.3	1.7	%
		60 and Over	59.5	58.0	11.5	%
<b>G4-LA6:</b> Safety	Employee and contractor LTIs by location	UUK	1	1	2	
		UNL	2	0	1	
		UD	2	0	0	
		UCP	4	2	1	
		UUSA	2	3	0	
		CNS			1	
		HO	0	0	0	
		Total	11	6	5	
		2016 LTI rate	0.12			2016 lost day rate
	Absentee rate	UUK	2.4	1.7	1.4	%
		UNL	2.3	3.0	2.4	%
		UD	3.6	2.0	4.0	%
		UCP	1.0	2.6	1.3	%
		UUSA	0.0	0.0	0.0	%
		CNS			2.4	%
		HO	1.5	1.9	2.9	%
		Total Group inc. UUSA	1.8	2.0	2.6	%
		Total Group ex. UUSA	2.5	2.6	2.6	%

Note: UUSA data is separated due to the fact annual leave is structured differently to the rest of Europe, as the first five days' absence is incorporated into annual 'paid time off'

# GRI performance

GRI G4 indicator	Description		2014	2015	2016	Unit	Change 2015-16
<b>G4-LA11:</b> % employees receiving regular performance and career development reviews	% employees receiving regular performance and career development reviews		100	100	100	%	
<b>G4-LA12:</b> % employees by age and gender	Male	Under 20	0.5	0.6	0.6	%	
		20-29	8.8	8.4	9.1	%	
		30-39	20.9	21.1	20.4	%	
		40-49	21.5	22.6	21.7	%	
		50-59	21.6	21.2	21.9	%	
		60 and over	6.2	5.2	5.4	%	
	Female	Under 20	0.1	0.0	0.0	%	
		20-29	3.0	2.8	3.2	%	
		30-39	5.8	6.8	6.5	%	
		40-49	5.6	5.6	5.9	%	
		50-59	4.7	4.7	4.7	%	
		60 and over	1.4	0.9	0.6	%	
		Total	100	100	100	%	

GRI G4 indicator	Location	2014			2015			2016*		
		Minimum URENCO rate (€/hour)	Minimum country rate (€/hour)	URENCO min ratio to country min	Minimum URENCO rate (€/hour)	Minimum country rate (€/hour)	URENCO min ratio to country min	Minimum URENCO rate (€/hour)	Minimum country rate (€/hour)	URENCO min ratio to country min
<b>G4-EC5:</b> Standard entry level wage compared to local minimum wage at significant locations of operations	UUK	18.03	8.35	2.16	18.75	7.21	2.60	9.80	8.39	1.17
	UD	15.39	8.50	1.81	15.82	8.50	1.86	16.29	8.50	1.92
	UNL	11.96	8.63	1.39	11.96	8.63	1.39	12.43	8.92	1.39
	UCP	19.92	8.35	2.39	21.56	7.21	2.99	18.84	8.39	2.25
	UUSA	14.71	5.99	2.46	16.69	6.89	2.42	21.03	7.10	2.96
	CNS							16.56	9.09	1.82
	HO	11.99	6.59	1.82	12.71	7.21	1.76	10.88	6.47	1.68

\* Bank of England rates at 30 December 2016

£:€ 1.1651

\$:€ 0.947

# Glossary

## **British Science Association**

A registered charity founded in 1831, whose vision is of a world where science is at the heart of society and culture.

## **Capital expenditure**

Purchases of property, plant and equipment including prepayments relating to payments to ETC in advance of contracted cascade deliveries, which will be supplied in future periods.

## **CNS**

Capenhurst Nuclear Services Limited, a subsidiary company of URENCO, has taken responsibility for storage of certain uranic materials on behalf of the Nuclear Decommissioning Authority at the Capenhurst facility in the UK.

## **Deconversion**

This is the process of removing the volatile fluorine component from uranium hexafluoride to make stable uranium oxide (U3O8). URENCO has chosen to use U3O8 as the long-term retrievable storage form of uranium.

## **EBITDA**

Earnings before exceptional items, interest (including other finance costs), taxation, depreciation and amortisation and joint venture results (or income from operating activities plus depreciation and amortisation, plus joint venture results). Depreciation and amortisation are adjusted to remove elements of such changes already included in changes to inventories and other expenses.

## **Energy Savings Group (ESG)**

The ESG is responsible for driving action, accountability and engagement in energy efficiency and optimisation. Three times a year, the ESG convenes meetings to share learnings and propose initiatives to minimise energy usage.

## **Enrichment**

The step taken in the nuclear fuel cycle that increases the concentration of U<sub>235</sub>, relative to U<sub>238</sub>, in order to make uranium usable as a fuel for light water nuclear reactors.

## **ETC**

Enrichment Technology Company Limited.

## **Euratom**

The European Atomic Energy Community, established in 1957 by members of the European Union.

## **Global Reporting Initiative**

The reporting framework which provides guidance on sustainability performance reporting.

## **Hazardous waste**

Transported, imported, exported or treated waste deemed hazardous under the terms of the Basel Convention Annexes I, II, III and VIII.

## **Head Office**

URENCO Group's head office in Stoke Poges, UK.

## **IAEA**

The International Atomic Energy Agency is the world's central intergovernmental forum for scientific and technical cooperation in the nuclear field.

## **LED**

Light-emitting diode.

## **Materiality**

Materiality refers to the sustainability elements which are sufficiently important that they should be reported. They cover the organisation's significant economic, environmental and social impacts, or substantively influence the assessments and decisions of stakeholders.

## **Non-hazardous waste**

Transported, imported, exported or treated waste that is not deemed hazardous under the terms of the Basel Convention Annexes I, II, III and VIII.

## **Nuclear Fuel Supply Chain**

The multiple steps that convert uranium as it is extracted from the earth to nuclear fuel for use in power plants. Uranium enrichment is one step in the nuclear fuel supply chain.

## **Order book**

Contracted and agreed business estimated on the basis of 'requirements' and 'fixed commitment' contracts.

## **Recycled**

The process of converting used materials, or waste, into new products.

## **Reused**

The process of putting a product to another use once its primary use has been exhausted.

## **Richie**

Richie is an animated character and acts as URENCO's science ambassador. The Richie programme is a core element of URENCO's school and education outreach. Through Richie, URENCO connects with its youngest audiences, teaching them about science and energy in an engaging and interactive way.

## **Richie Lecture**

URENCO's annual Richie Lecture is a celebration of STEM education for school children, featuring a lecture on a related topic, held at the Science Museum.

## **SMR**

Small modular reactors are advanced reactors that produce electric power up to 300MWe, designed to be built in factories and shipped to sites for installation as demand arises.

## **Stable Isotopes**

URENCO's Stable Isotopes business uses centrifuge technology to produce a variety of other products for medical, industrial and research applications.

## **STEM**

Refers to the core subjects of Science, Technology, Engineering and Maths.

## **Supplier of choice**

Increasing available capacity and experience of new operating environments facilitates first class service delivery and the flexibility to meet the changing needs of our customers. This will enable URENCO to be considered the 'supplier of choice' by our customers.

# Glossary

## **SWU**

Separative Work Unit. The standard measure of the effort required to increase the concentration of the fissionable U<sub>235</sub> isotope.

## **Tails (depleted UF<sub>6</sub>)**

Uranium hexafluoride that contains a lower concentration than the natural concentration (0.711%) of the U<sub>235</sub> isotope.

## **Tails Management Facility (TMF)**

The facility constructed and operated by URENCO ChemPlants Limited that will manage the deconversion of tails to stable uranium oxide (U<sub>3</sub>O<sub>8</sub>). Currently under construction at URENCO's UK site in Capenhurst, UK, it will consist of a number of associated storage, maintenance and residue processing facilities to support URENCO's long-term strategy for the management of tails.

## **U<sub>235</sub>**

The fissionable uranium isotope found in natural uranium.

## **U<sub>238</sub>**

The non-fissionable uranium isotope that makes up most of natural uranium.

## **UD**

URENCO Deutschland.

## **UNL**

URENCO Nederland.

## **Uranium**

A fairly abundant metallic element. Approximately 993 of every 1,000 uranium atoms are U<sub>238</sub>. The remaining seven atoms are U<sub>235</sub> (0.711%), which is used in today's nuclear power stations to generate energy by fission.

## **Uranium hexafluoride (UF<sub>6</sub>)**

All enrichment processes today work with gaseous material; therefore, uranium is converted to UF<sub>6</sub>.

## **URENCO ChemPlants Limited (UCP)**

URENCO ChemPlants Limited, a subsidiary company of URENCO, is responsible for the construction and operation of the Tails Management Facility at URENCO's site in Capenhurst, UK.

## **UUK**

URENCO UK.

## **UUSA**

URENCO's enrichment facility in New Mexico, US, owned and operated by Louisiana Energy Services LLC.

## **Further information**

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